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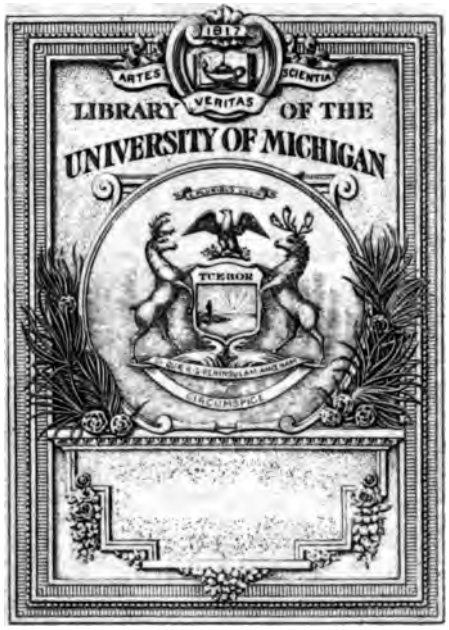
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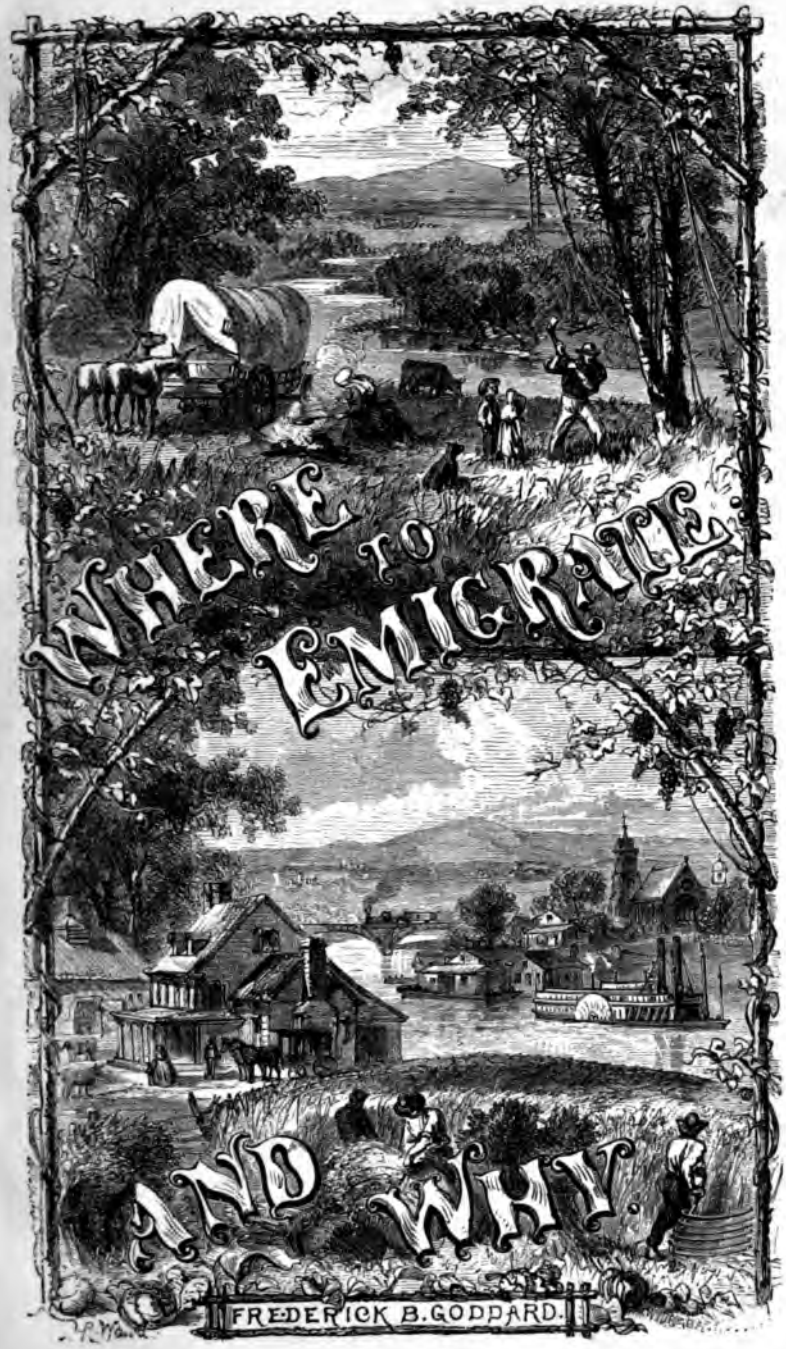
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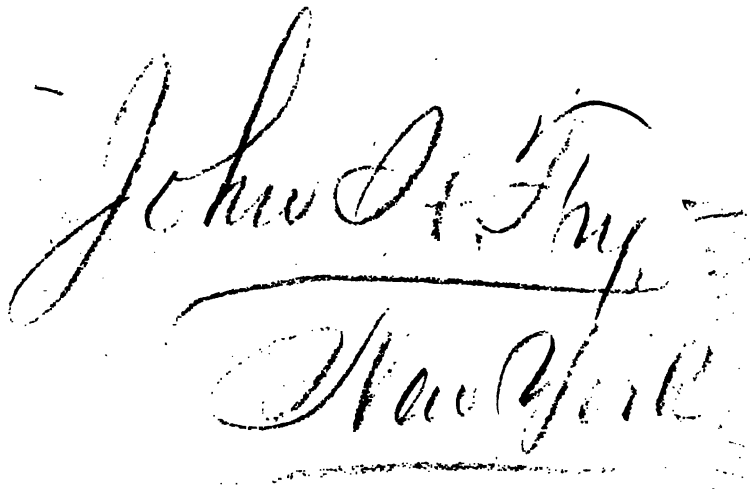
John A. Fry
New York

WHERE TO EMIGRATE,

AND WHY,

DESCRIBES THE

CLIMATE—SOIL—PRODUCTIONS—MINERALS AND GENERAL RESOURCES—AMOUNT OF PUBLIC LANDS—THE QUALITY AND PRICE OF FARM LANDS IN NEARLY ALL SECTIONS OF THE UNITED STATES;

AND CONTAINS

A DESCRIPTION OF THE PACIFIC RAILROAD—THE HOMESTEAD AND OTHER LAND LAWS—RATES OF WAGES THROUGHOUT THE COUNTRY, ETC., ETC.

With Maps and Illustrations.

BY

FREDERICK B. GODDARD.

Issued in this country by Subscription only, and not for sale in the book-stores. An agent will bring this work to any person in the United States who orders it through the Publisher.

NEW YORK:

FREDERICK B. GODDARD, PUBLISHER,

432 BROOME STREET.

1869.

Entered according to act of Congress, in the year 1869,
By FREDERICK B. GODDARD,
In the Clerk's Office of the District Court of the United States for the
Southern District of New York.

John H. Fry,
New York -

History - Southern
Newhall
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PREFACE.

BELIEVING that a book has long been needed which would enable the reader to estimate and compare the resources and relative advantages of the various sections of the United States, I have undertaken to gather the desired information, and so present it, that, while useful to the citizen, it might be to the emigrant what the chart is to the mariner. The result of my efforts is now before the public. I have endeavored, without prejudice or partiality, to set forth reliable and practical information respecting the several States and Territories of the West and South, with such additional matter as seemed relevant to the work, to make it meet the significance of its title. While copying extensively from various late official and other authentic publications, I have seldom done so without permission, and have intended invariably to fortify extracts thus made by duly citing the authorities from which they were taken. I have gratefully to acknowledge the receipt of valuable reports and documents from the Departments at Washington, and from various State authorities, and, also, especially and

heartily to thank the thousands throughout the land who have so promptly and fully responded to my letters of inquiry. Neither labor nor expense has been spared to make this work complete; and I hope it may be kindly received, that it will benefit those who seek new homes, and promote the good of our common country.

NEW YORK, *December* 22, 1868.

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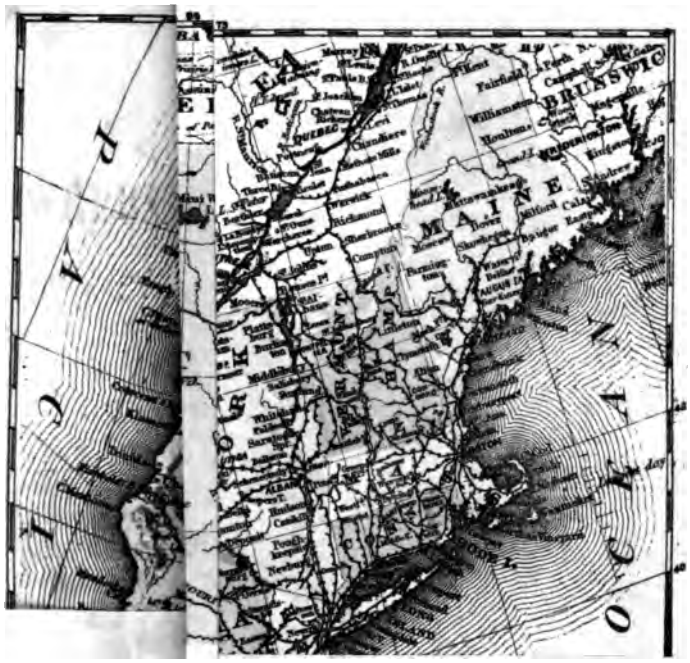
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WHERE TO EMIGRATE, AND WHY.

CHAPTER I.

THE PUBLIC DOMAIN of the United States is almost boundless. Its unsold acres, exclusive of Alaska, number nearly fifteen hundred millions, as yet covered only with the primeval forest, or the wild and wanton vegetation of the prairies, "wherewith the mower filleth not his hand, nor he that bindeth sheaves his bosom."

The surface of this vast area is infinitely diversified with rivers and lakes, verdant prairies and sandy plains, lofty mountains and extensive valleys, and equally varied in its climate and soil, in its resources and range of productions. It requires no prophetic inspiration to foretell that thronging millions will soon people these broad and fertile acres, or that the future of our nation will be the most magnificent of any whose history is recorded.

With long lines of sea-coast on either ocean, our territory lies between, upon parallels of latitude which have ever nurtured the most vigorous nations—equally removed from the burning heats of the torrid and the rigors of the frigid zone—possessing a healthful climate, with mildly alternating seasons, which seem to compel exertion only to reward it.

We have the longest river and the largest lake navigation in the world; and from a single line three miles long in 1828, our railroad system has grown to a total length of more than forty thousand miles in 1868—nearly sufficient to twice engirdle the earth. Our people are unsurpassed in enterprise and intel-

ligence, and our benignant Government, which is at once our pride and glory, has made our country the hope and refuge of the world.

Ours is no land of "organized ignorance." Systems of schools, free alike to the children of the rich and the poor, pervade nearly every section of the country, and from every town, and village, and hamlet, churches point their "taper fingers toward Heaven." Our Constitution guarantees us the two greatest rights of manhood: freedom to worship God as we please, and the right to elect our own rulers. And the flag we love and revere now equally protects all its children, native-born or adopted; our Government having, by recent legislation, declared to the nations of the earth that the old feudal doctrine, "once a subject, always a subject," must be abandoned, and that she will maintain the rights of her naturalized citizens here or in foreign lands, and accord to their persons and property the same protection as to her native-born citizens.

To the natural advantages of our country and to the excellence of its institutions, we owe the fact that within a few score years we have grown from an English colony to be one of the foremost nations of the earth, numbering thirty-five to forty millions of people, of whom it is estimated that the emigrants drawn to our land of mingling nationalities since the year 1790, now comprise, with their descendants, over twenty millions.

The Hon. Charles Sumner, a distinguished American statesman, in an argument to sustain and extend the rights of the foreign-born among us, thus eloquently referred to their claims upon our hospitality and affection:—

"The history of our country, in its humblest as well as most exalted spheres, testifies to the merits of foreigners. Their strong arms have helped furrow our broad territory with canals, and stretch in every direction the iron rail. They have filled our workshops, navigated our ships, and even tilled our fields. Go where you will, among the hardy sons of toil on land or sea, and there you will find industrious

and faithful foreigners bending their muscles to the work. At the bar and in the high places of commerce you will find them. Enter the retreats of learning, and there you will find them, too, shedding upon our country the glory of science. Nor can any reflection be cast upon foreigners claiming hospitality now, which will not glance at once upon the distinguished living and the illustrious dead—upon the Irish Montgomery, who perished for us at the gates of Quebec; upon Pulaski, the Pole, who perished for us at Savannah; upon De Kalb and Steuben, the generous Germans, who aided our weakness by their military experience; upon Paul Jones, the Scotchman, who lent his unsurpassed courage to the infant thunders of our Navy; also upon those great European liberators, Kosciusko, of Poland, and La Fayette, of France, each of whom paid his earliest vows to liberty in our cause. Nor should this list be confined to military characters, so long as we gratefully cherish the name of Alexander Hamilton, who was born in the West Indies, and the name of Albert Gallatin, who was born in Switzerland, and never, to the close of his octogenarian career, lost the French accent of his boyhood —both of whom rendered civic services which may be commemorated among the victories of peace."

And now that the unhappy strife which has torn our chastened country is ended, we can realize that it has been the seal of our National greatness. In its peril we have felt its value, and in battling for its integrity we have inspired increased affection for its institutions. It has developed our sinews and shown us our strength; and again a

> "—Land of happy Union! where the East
> Smiles on the West in love, and Northern snows
> Melt in the ardor of the genial South!"—

we are entering upon a career of prosperity to which even the annals of our own country present no parallel.

It is stated, upon the official authority of Mr. D. A. Wells, Special Commissioner of the Revenue, that

"Since the termination of the war more iron furnaces have

been erected, more pig-iron smelted, more bars rolled, more steel made, more coal mined, more lumber sawed and hewed. more vessels built upon our inland waters, more houses constructed, more manufactories of different kinds started, more cotton spun and woven, more petroleum collected, refined, and exported, than in any equal period in the history of the country."

During the last two years more than six hundred thousand sturdy immigrants have landed upon our shores, and there is no ebb to the flowing tide. Our land is ringing with the din of her internal improvements; cottages are springing up far away to the west upon sunny acres where, but yesterday, roamed the Indian and the buffalo. Grand lines of railroad are stretching out across the continent—iron monsters resting upon either ocean, swallowing the values of one hemisphere to void them upon the other—revealing what our first Great Emigrant, Columbus, vainly sought to manifest in the gloom of earlier ages—that the shortest way to the Indies was *via* America.

When the Pacific Railroad is completed—now almost an accomplished fact—New York and San Francisco will be united by a continuous track thirty-four hundred miles in length, and the development of those portions of our domain which lie upon the "sunset side" of the Mississippi River, must be accelerated under its mighty agency in proportion to their increased facilities of access.

And all we have, and are, or may be, as a nation, we offer to share with the struggling millions of the earth.

Our Homestead Law—one of the most beneficent enactments of any age, or country, and one which has done more than any other to honor the American name, and make it loved throughout the earth—provides that each male or female settler, after five years' occupation, becomes the owner of one hundred and sixty acres, on payment of ten dollars and the land officer's fees, providing such settler be a citizen of the United States, or has declared an intention to become so; and it further provides that no land acquired under the provisions

of this act shall, in any event, be liable for the payment of any debts contracted prior to the issuance of the patent therefor.

In March last, our House of Representatives passed, without division, the following resolution:—

"Resolved, That in order to carry into full and complete effect the spirit and policy of the Pre-emption and Homestead laws of the United States, the further sales of the agricultural public lands ought to be prohibited by law; and that all proposed grants of land to aid in the construction of railroads, or for other special objects, should be carefully scrutinized, *and rigidly subordinated to the paramount purpose of securing homes for the landless poor*, the actual settlement and tillage of the public domain, and the consequent increase of the national wealth."

[Both the Homestead and Pre-emption Laws may be found at length, further on in this book.]

We want yet more people to wake our sleeping wealth; strong-armed men to press to the front in our march of civilization, and conquer easy victories with the plowshare—to "tickle our prairies with a hoe that they may laugh with a harvest." We offer them the greatest boon on earth—Manhood and Independence. As one of our most eminent statesmen has nobly said:—

"There are our broad lands, stretching toward the setting sun; let them come and take them. Ourselves the children of the pilgrims of a former generation, let us not turn from the pilgrims of the present. Let the home founded by our emigrant fathers continue open in its many mansions to the emigrants of to-day."

In our favored land the capitalist may find abundant scope for the profitable use of all his resources. Says J. Ross Browne, in his recent Report upon the Mineral Resources of the Pacific States and Territories: "Explorations made by prominent parties during the past year in many parts of the mineral regions hitherto unknown, demonstrate the fact that the area of the mineral deposit is much larger than was ever before supposed. It is safe to assume that of the claims

already recorded in settled parts of the country and known to be valuable, not more than one in a hundred is being worked; and of those worked, perhaps not more than one in fifty pays any thing over expenses, owing to mismanagement, inefficient systems of reducing the ores, want of capital, cost of transportation, and other causes susceptible of remedy. With such wealth of treasure lying dormant, it can not be doubted that by the increased facilities for transportation and access to the mines, soon to be furnished by the Pacific Railroad and its proposed branches, and the experience in the treatment of ores, and the scientific knowledge to be acquired in a national school of mines, the yield must eventually increase." And yet, in spite of the drawbacks above alluded to, upon the authority of the Secretary of the Treasury at Washington, the bullion product of the United States for 1867, was seventy-five millions of dollars.

There are hundreds of railroads yet to be built; a quartz-mill or a flouring-mill, a saw-mill, or a paper-mill, is or will be wanted in every valley from sea to sea, from the Gulf of Mexico to the Saskatchewan; and there is no lack of water power to be made available. Let us refer to two prominent instances in a single State: "It is said by competent engineers that the Falls of St. Anthony alone have an available capacity more than sufficient to drive all the twenty-five million spindles, and four thousand mills of England and Scotland combined. * * * And this splendid cataract forms the terminus of continuous navigation on the Mississippi, and the same waters which lavish on the broken ledges of limestone a strength sufficient to weave the garments of the world, may receive the staples of its mills almost at their very doors, and distribute them to every part of the great Valley of the Mississippi." The Falls of the St. Louis River, upon the navigable waters of Lake Superior, are said to possess equal hydraulic power, and, situated at the head of navigation of the great lakes, where, near the mouth of the St. Louis, must soon be one of the greatest of our inland cities, and the terminus of the Northern Pacific Railroad, its advantages are apparent.

And throughout the South everywhere, are millions of acres of the finest cotton, wheat, sugar, and rice lands in the world—many of them fenced and improved—that to-day await a purchaser at a price that, a few years hence, will be but the simple interest of their current value.

If past experience be worth any thing—if we may judge from the rapid settlement and appreciation in value of the lands of Ohio, Illinois and Indiana—surely the lands of the newer States and Territories, with their genial climate, great fertility, and vast mineral wealth—under the added stimulus of the great railroads opening up to their products the markets of the West as well as the East, and a larger national immigration than ever before—can not idly linger in their advancement. On the contrary, all reasonable inference tells us that they will as far outstrip the older States of the West in rapidity of development, as the emigrant of to-day upon the iron horse outrides the pioneers of those States moving slowly on in the lumbering wagons of the past.

CHAPTER II.

THERE are seasons in the lives of all of us, when the clouds seem to close thickly in about us—when, for instance, some circumstance brings forcibly home the possible loss of health, or failure in business, or lack of employment; or we are worn and wearied with the bustle, and din, and vice of our great cities, and yearn for a more quiet and a purer life.

At such times who has not felt himself inspired with what we may call the instinct of emigration, akin, perhaps, to that of the birds of passage, and turned his thoughts fondly and longingly toward some ideal spot among the broad fields and green pastures, the murmuring streams, and long valleys of the West or South, believing that a more vigorous health, or a larger independence, or a happier home, awaits him there?

And the gloomier our surroundings, the more attractive do these Arcadian homes appear to us, as we best appreciate the beauties of an illuminated picture from a darkened stand-point.

While there are many to whom these thoughts are nothing but abstractions or pleasant day-dreams, there are also multitudes whose desire to emigrate is an ever present reality—who are eagerly awaiting the opportunity or the means to go forth, or for light to guide their willing feet; others still, lacking only resolution, who should remember that, "no great deed is done by falterers who ask for certainty." Tens of thousands of smiling cottages, and well-fenced and cultivated farms, and other evidences of thrift and happiness throughout the great West, bear eloquent testimony to the wisdom and the rewards of emigration.

And there are other thousands who ought to catch the spirit of migration if they have it not, and strike out for new fields of enterprise. Farmers of the Atlantic States, who have

vainly toiled for years to get "forehanded," or to pay off "the little mortgage;" or their grown-up sons, to whose sturdy labor the rocky acres of the old home-farm offer no adequate reward. And that large class of aimless men, who are floating where they should row—lingering around our large cities, waiting for something to "turn up" which will enable them to live without labor and be "genteel," always disappointed and unsuccessful in the great battle of life! Is it not strange that these men elect to struggle with poverty all their days, when the good God of Nature has so bountifully blessed us with lands of beauty and fruitfulness, to be had for the taking; and remunerative fields for energy and muscle in a thousand avocations, at a time when the growing dignity of tilling the soil, and labor of all kinds, is acknowledged throughout the world; and when the inventive genius of our people has enabled us to produce with the same labor more bread, and meat, and clothing than ever before?

He who transplants himself to a new country comes up out of the old routine of thought and action into new life and vigor. He gives a portion of the peculiarities of his earlier experience and knowledge to the general fund, and receives a multiplied experience in return. Every thing about him is suggestive. It calls him out—it stimulates his exertion. If he has been before unsuccessful, he may here begin life anew; and standing erect among his fellows, retrieve the errors or misfortunes of earlier years. A new range of ideas is given to every man who emigrates, be he farmer or gardener, fruit-grower, cattle-raiser, merchant, carpenter, bricklayer, lawyer, or physician.

We can anticipate that a most important question with many will be—With how little money can I prudently undertake this great change?—how much will it require to establish my family comfortably in a new home, and support them until my farm yields returns?

So much depends upon what the emigrant may consider as the standard of comfort—upon his willingness to undergo the greater or less privations incident to life in a new home—upon

his tastes and habits—upon his energy and resolution—upon the helping hands of his wife and children, and many other modifying circumstances—that what one may find an ample capital, another might consider totally inadequate.

A distinguished journalist, who is regarded as authority upon subjects connected with emigration, says:—

"The pioneers who settled Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Minnesota, and Kansas, averaged a good deal less than seven hundred dollars each as their outfit. With seven hundred dollars, a man may take up a quarter-section of homestead land, buy a team and cow, build a cabin and cattle-shelter, get a few implements, break up and sow or plant twenty acres of prairie, and have a crop growing. * * * At the end of five years he should, with fair luck, have forty acres under good cultivation, as many more fenced in for hay and pasture, and a fair stock of young cattle. After that, he may pass an Eight-Hour law for himself and wife, and live in substantial independence and comfort."

While the emigrant would probably succeed with less, he can not have too much money. Men with means, possess in the newer portions of our country, as elsewhere, great advantages. It will be understood that free homesteads under the acts of Congress are not to be found near great cities or villages. They are only to be secured in thinly settled and more remote districts, back from lines of railroads and steamboat landings. As a rule, he who settles under the homestead law must be content to wait a few months, or years, to hear the whistle of the locomotive from his own door-step. Others may select the spot where they wish to settle, and purchase improved lands nearer to market and educational advantages, at prices ranging from three dollars upward, or find abundant opportunities to engage in manufacturing or mercantile pursuits.

There are railroad companies in the West, owning large quantities of desirable land along their lines, which they offer at from five to twenty dollars per acre, requiring only a small portion of the amount in cash, and giving a long time upon the remainder, at low interest.

A few suggestions to those seeking new homes may not be amiss.

And first, as HEALTH is the greatest earthly blessing, so it should be first considered, especially by those with families. The healthfulness of any proposed point of settlement should be fully ascertained by the emigrant, as the preliminary step in his investigations. While our country embraces a wide diversity of climate, it is, as a whole, remarkably healthy. There are localities which may, more or less, require seasons of acclimation; but there are few, if any, that are absolutely unhealthy. As a general rule, the avoidance of low, swampy lands, may be recommended.

Other important considerations are:—The quality and price of land at the point where you would go? Is it well-watered? Is it cleared land, or timber, or prairie? What are its prospects in respect to an increased population, and the consequent advancement in the value of property? What are the school and religious advantages? Can workmen be had, and what are wages? And in view of the influence such things have upon children, and upon the social happiness of yourself and family, can vines, and fruits, and flowers, be easily raised? What is the general tone of society? What the relative number of working days in the year? Will your stock need housing in winter, and for how long? &c.

Answers to these queries will be found further on, in the chapters devoted to each State.

To the foreign emigrant we kindly suggest, that while we need his muscle more than his money, there may be inconvenience to himself and his family, in landing upon our shores entirely destitute. Let him, if possible, have enough for immediate wants, and to carry them away from the crowded cities of the coast. If, in addition, he brings with him a few hundred dollars with which to purchase his seed, and stock, and tools, he may feel sure that he has within his reach the new home, with its comforts and freedom, which he has crossed the ocean to find.

Nearly all emigrants to the United States of America, land

in New York City. Upon the arrival of any emigrant vessel at quarantine station, six miles below the city, she is boarded by an officer who ascertains the number of passengers, and their condition in respect to health, &c. He also hears all complaints, which he reports to the Commissioners of Emigration in New York. Proceeding, the vessel casts anchor in the stream convenient to the great landing depot called Castle Garden. After an examination of the luggage by the Inspector of Customs, it is checked and, with the passengers, transferred to barges and steam-tugs, and landed at the Castle Garden pier. Here, the emigrants are examined by a medical officer, the sick sent to the hospital, and all blind persons, cripples, lunatics, or others likely to become a public charge, are subject to special bonds. This examination being ended, the names, former place of residence and intended destination of the emigrants, with other particulars, are registered, and they are then at liberty to go their several ways.

Castle Garden is under the management of Government officials, none of whom are allowed to charge or receive money for any services they may render. It has for twelve years been devoted exclusively to the reception of emigrants, and is conveniently fitted up for the purpose. Connected with the department is a "labor exchange" or intelligence office, designed to furnish employment for emigrants of both sexes, among farmers and others throughout the country. In August of the present year, Mr. Erbe, Superintendent of the Castle Garden Labor Exchange, stated that the demand for laborers had for several months been larger than the supply.

Further on in this work the reader may find a table, showing the average rate of wages for agricultural labor per month, throughout the United States. The book also contains reliable maps of the several States and Territories, and a general map of the United States. Also a chapter explaining the different routes by which to reach various parts of the country, &c. The price of lands, climate, productions, and general advantages of all the States and Territories, will be found in chapters devoted respectively to them.

CASTLE GARDEN, THE EMIGRANT LANDING-PLACE IN NEW YORK.

And now, before we pass to the consideration of each State by itself, we would grasp each emigrant by the hand and bid him God speed!—whether he be one of our own northeastern farmers, who has hopelessly wrestled with long and rigorous winters upon a scanty and barren soil; one of the fair-haired sons of Faderland—the wailing children of old Ireland—the sinewy men who live by the sounding shores of Norway—or any one of the down-trodden millions of the Old World who would earn a nobler manhood, and whose wistful eyes, following the setting sun, yearn to behold a happier home among the green meadows of our own land.

May this volume help to guide many such timid and uncertain feet from poverty and hopeless toil, to happiness and independence.

CALIFORNIA.

In the month of February, 1848, gold was found in one of the streams of an almost unknown region far away to the west, upon the shores of the great Pacific Ocean. Under Almighty direction, this discovery gave the impetus to an emigration thither, which has since sprung upon a wondering world that most marvelous monument to the genius of the age and the enterprise of the American people, now known as the State of California.

As no other age could have fostered, so no people but this could have compassed such amazing results in the short space of twenty years. Then, a strange, wild, solitary land; now, California sits enthroned in opulence and power, Queen of the Pacific and Pride of the Nation. Behind the "Golden Gate" her metropolis sits regnant, and the oldest nations of the earth pay her peaceful tribute. Vessels from every part of the civilized world furl their sails in her beautiful harbor, mingling their masts and spars to the semblance of a leafless forest.

Thousands of earnest men have crept up the slopes of her mighty mountains, and torn from cañons and gorges their dormant wealth; sent home for wives and families, and built towns and cities, with churches and schools, and telegraphs, and railroads. Along her rivers and valleys, others have swept away the wild tulé and the vegetation of nature, and touched the fertile acres to the kindlier issues of wheat and corn, until now, throughout her length and breadth, California glows and thrills with the spirit of Progress and the quickening instincts of her splendid future.

The Pacific Railroad—now rapidly approaching completion—will make San Francisco a commercial center of the world, the Metropolis of a Hemisphere. It will enable her, while

with one arm she swoops up the commerce of the Indies and the myriad-peopled nations of the Orient, to stretch the other across the continent and grasp the traffic of the great marts of the Atlantic. California's border lines extend 750 miles in length by 230 in breadth, embracing every description of salubrious climate, from tropical to northern temperate; and her wonderfully fertile soil is equally versatile in its broad range of production. The fame of her mineral resources is world-wide, and her manufacturing facilities rival those of any other State in the Union.

According to a late semi-official enumeration, the present total population of California is about 550,000, of which about two-thirds are males. Of the entire population one-fifth are children under eighteen years of age. There are in the State 60,000 Chinese, 7,000 Indians, and 5,000 colored, included in the above-named total. According to the "TRIBUNE ALMANAC," the total vote for Governor of the State in September, 1867, was 92,352; but the actual number of voters in the State is about 130,000, of which 55,000 are from the free States, 30,000 from the former slave States, 20,000 Germans, Swedes, Danes, Russians, &c.; 15,000 Irish, 5,000 English, Scotch and Welsh, 5,000 French, Spanish-Americans, Italians, &c.

As an illustration of California's capacity for wheat-raising, it is officially stated that, from January 1st to October 1st of last year (1867), 174 ships sailed from San Francisco with cargoes of wheat—113 of which went to Europe, 31 to Atlantic ports, and 20 to China; and, as showing the profits of stock-raising, it is also officially stated that the sheep-firm of Flint, Bixby & Co., Monterey County, own 75,000 sheep, which feed on a range of 200,000 acres. The firm commenced sheep-raising fifteen years ago, with a capital of $5,000.

From the very able and interesting Report, for 1867, of Hon. JOSEPH S. WILSON, Commissioner of the General Land Office, we extract the following respecting California:—

LAND.

Its area is 188,881 square miles, or 120,947,840 acres, of

which not less than 89,000,000, including swamp and tulé lands, capable of reclamation, are suited to some kinds of profitable husbandry. Of these over 40,000,000 are fit for the plow, and the remainder present excellent facilities for stock-raising, fruit-growing, and all the other branches of agriculture. This agricultural area exceeds that of Great Britain and Ireland, or the entire peninsula of Italy. The State also contains about 40,000,000 of acres of mineral land, unsurpassed for productiveness. About thirty millions of acres have been surveyed, leaving a residue unsurveyed of ninety millions. Nearly nine millions have been granted to the State by the General Government, under various acts of Congress, for Common Schools, Agricultural Colleges, Public Buildings, and Internal Improvements.

Of the forty million acres of arable land, fourteen millions are found in the basin of the Sacramento and San Joaquin rivers, sixteen millions in the coast valleys, and the residue in the region called the "Colorado Desert" in Owen's River valley, and the Klamath basin. When irrigation is practiced on an extensive scale, as it must be within a few years, and the valley of the Colorado is brought under its influence, much of what is now characterized as "desert" will become productive and valuable. The land not fit for the plow, but valuable for grazing, and in a measure for horticultural purposes, especially the grape culture, is to be found on the foot-hills and slopes of the Sierra Nevada and Coast Range mountains.

CLIMATE, PRODUCTS, ETC.

The soil and climate of California, are eminently adapted to the growth of wheat, barley, oats, potatoes, hops, tobacco, hay, and sorghum; in certain localities, to corn, cotton, the southern sugar-cane; to almost every variety of garden vegetables cultivated east of the Rocky Mountains; to the apple, pear, plum, cherry, apricot, nectarine, quince, fig and grape; and along the southern coast, to the orange, lemon, citron, olive, pomegranate, aloe, filbert, walnut, hard and soft-shell almond, currants, prunes, pine-apples, and the plantain, banana, cocoa-nut and indigo. Strawberries, raspberries, blackberries, gooseberries, figs, grapes, and the hardier fruits, as the apple, peach and pear, succeed well in every portion of the State. There are very few parts of the world where fruit-trees grow so rapidly, bear so early, so regularly, so abundantly, and produce fruit of such size, and where so great a variety can be produced, and of such superior quality, as on the southern coast of California. The pear is more especially the fruit-tree of California. It thrives in all parts of the State; neither tree nor fruit is subject to any form of disease, the fruit being everywhere of delicious flavor and large size. Some trees produce annually forty bushels of pears.

The varied climate on the Pacific, its freedom from frosts,

severe cold, and furious storms, give it special advantages as a fruit-growing region; and although the trees grow more rapidly and bear much earlier than on the Atlantic, they are not subject to early decay. The fruit-trees of the Missions, many of them thirty and forty years old, are still in excellent condition, and full bearing, not having failed at any season during the past twenty years to produce good crops. Experience has established the fact, that the climate and soil of California are equal to any in the world in their adaptation to grape culture and the manufacture of wine. The yield of the grape has been larger, its freedom from disease greater, than in the most celebrated European vineyards. Three hundred varieties have been already successfully cultivated, including the choice foreign wine-producing grapes; and so diversified are the soil and climate that all wines can be produced here, and even superior in quality to the imported.

The vine in California is not subject to the oidium or grape disease, frequently so destructive in other countries, nor is it liable to mildew. The vineyards of the State seldom, or never, yield less than one thousand pounds of grapes per acre, and even twenty thousand pounds have been produced. The crops are regular every year, and as there are neither severe frosts, nor hail, rain, or thunder storms, from the budding of the vines until the grape is gathered, they are not liable to the accidents and drawbacks attending them in other places. In Europe, the vine is trained with a stock four feet high, and supported by a pole put up every year to which the vine is fastened. In California it stands alone, the labor thus far being nothing compared with that bestowed upon the best European vineyards. The number of vines already set, all of which will be in full bearing in three years, is estimated at nearly thirty millions.

In 1863, the total number planted in vineyards in the State, was nearly three and a half millions, showing an increase of twenty-five millions in four years. Hock, champagne, port, and claret, constitute the varieties of wine already exported. No doubt is entertained that when the California wine-makers have had the necessary experience, and their wines have attained sufficient age, they will take rank with the very best, and that its manufacture on the Pacific coast is destined to become of vast importance, while series of vineyards, stretching from San Diego to Mount Shasta, will within another quarter of a century add not only beauty, but substantial wealth to the State. Among the fruits cultivated on the southern coast during the present year, have been the orange, lemon, fig, lime, the English walnut, almond, olive, apricot, and nectarine, numbering in the aggregate between 400,000 and 500,000 trees, in a greater or less state of maturity. The cultivation of these and other fruits, is rapidly extending in California, with marked success. * * *

As both the mulberry and the silk-worm are so thrifty, there is no reason to doubt that silk culture will succeed, and that it will become an important interest in the State. Eight hundred thousand cocoons were brought into market in 1865, and six times that number in 1866. Two large silk factories have been established in the State, and silk of very excellent quality is being manufactured.

The cultivation of the Chinese tea-plant has received attention, but we have no reliable information as to how far successfully, during the last few years.

The wheat product is large and constantly increasing. In favorable seasons fifty and sixty bushels to the acre is no unusual yield. The wheat of certain localities is especially rich in gluten, commanding for its superior quality the highest price in New York. It is also remarkable for its flintiness or dryness, being especially adapted for shipment to tropical countries where the moister flour is soon subject to fermentation.

The climate of California is favorable to stock-raising, and in many parts this is the leading branch of husbandry. Horses, mules, oxen, beef cattle, cows and sheep, are extensively raised.

Sheep husbandry is rapidly becoming an important industry. The mild winters permit the sheep to graze throughout the year, it being claimed that sheep bred in California are at two years of age usually as large and heavy as those three years old on the Atlantic coast. Improved breeds have been extensively imported. The slopes of the Coast Range and the Sierra Nevada, form sheep walks hundreds of miles in extent, with abundance of excellent pasture throughout the year. Woolen manufactures already take high rank, and much of the wool raised is manufactured within the State into cloths and blankets.

Timber.—California has an abundance of timber of the finest varieties. The northern part of the coast is well covered with spruce, pine, and red-wood, and the valleys have beautiful groves of oak. The western flank of the Sierra is a long, wide slope, timbered and grassy, with intervals of arable soil, copiously watered by numerous streams. Its length is 500 miles, with a width of 70, from the summit to the termination of the foot-hills in the edge of the valleys of the Sacramento and San Joaquin.

This wide slope of gentle ascent is covered with timber; first, with the oak, the manzanita, and nut-pine, to half the elevation of the mountain, which is called the oak region, that being the predominating tree; then there are the pines, cypresses, and cedars, the pines being the most numerous, and hence the upper benches of the mountain constitute the pine region.

In the valleys of the Sacramento and the San Joaquin, and on the Coast Mountains south of 35° of latitude, the supply of timber is deficient. The red-wood is found only in California and south-

ern Oregon, growing within 30 miles of the ocean, from latitude 37° north to the mouth of the Umpqua River in the State of Oregon. The wood is straight-grained, free-splitting, durable, soft and light, being of rich, dark-red color. It is one of the most valuable of all varieties of timber. The trees grow in dense forests, often reaching in height 275 feet, with a diameter of from 18 to 19 feet. Many of these furnish 20 saw logs to the tree, each 10 feet long, and an acre of them will frequently make a million feet of sawed lumber. The growth covers an area in the State of about ten thousand square miles. * * * *

The sugar-pine, in the value of its timber and prolific growth, is next to the red-wood, sometimes even equaling it in length and diameter. * * * * Of firs, the Douglas spruce, or red fir, is the most noted, often 300 feet high, with a trunk 10 feet in diameter. * * * * The white oak is a characteristic tree of California, having much resemblance to the oak of England. * * * * Other trees, both deciduous and evergreen, abound in the forests, as the evergreen oak, the evergreen chestnut oak, the buckeye and sycamore.

The most remarkable tree in California, and the largest in the world, is the *Sequoia Gigantea*, or mammoth tree, growing with a clear, straight stem, sometimes to the height of 400 feet, with a diameter from 30 to 40 feet in the larger specimens. It is found only on the western slope of the Sierra Nevada, in southern California, growing in scattered groves at various points through hundreds of miles. Fifteen or twenty groves are now known, one of which is in Calaveras County, three in Mariposa, one in Tuolumne, and one in Tulare. * * * *

The State of California, unequaled in the grandeur and extent of its marvelous beauty and unlimited resources, has been rapidly occupied by an appreciating, energetic, and industrious people. The census of 1860 shows an increase of 150 per cent. in ten years in the acreage inclosed in farms, while the value of farms and farm implements advanced at least fifteenfold. The live stock enlarged in number at rates ranging from fourfold to two hundredfold, and in value twelvefold. Cereals, beans, peas, and potatoes, expanded from thousands to millions of bushels. The same multiplied results are seen in the values of orchard and garden products.

The progress of Californian agriculture during this period, so extraordinary even in this age, has been measurably quickened since that time. As an illustration, the yield of wheat in 1860 was over five millions of bushels. Reliable estimates place the yield of the late harvest at twelve millions; of this aggregate four millions will be sufficient for home consumption, leaving eight millions for export.

The manufacturing industry of the State has increased at rates

no less remarkable. The number of establishments in 1860 was 8,468, with a capital of $22,051,096, using raw material valued at $27,051,674, the cost of labor being $28,402,287, and the product of the year's operations was valued at $68,253,228, leaving a profit of $12,799,267, or 58 per cent. on the capital invested. No authoritative returns have been received showing the progress of manufactures since that time. Sufficient, however, has been gathered from various sources of public and private information, to show that the advance in this branch of industry has been no less remarkable than the agricultural development.

MINERAL RESOURCES.

The great and distinguishing feature of California is, however, its unexampled mineral wealth. The first discoveries of gold were made in 1848, when $10,000,000 were taken from the mines, increasing to $40,000,000 in 1849, and upward of $65,000,000 in 1853.

No returns are made of the quantity taken from the mines, and the mint records are the only official data existing upon the product for any portion of the Pacific coast. Various estimates have been made by mining engineers, bankers, and other intelligent and practical business men in San Francisco, and elsewhere in California, as to the total product of that State since 1848. These estimates vary from eight hundred millions to one billion. From the commencement of 1849 to the close of 1866, upward of seven hundred and eighty-five millions have been manifested at San Francisco for exportation, all of which, with the exception of sixty-five millions, appears to have been the product of California. How large a portion of gold found its way out of the State without being manifested for exportation, is, of course, a matter of conjecture, different authorities estimating it from one hundred to three hundred millions. But either estimate is sufficient to furnish an idea of the immensity of the mineral wealth of the State.

Silver mines in the State are comparatively inconsiderable, yet quantities of that metal are annually obtained by separating it from gold, with which it is, in small portions, generally united when taken from the mines. The quicksilver mines of California are among the most valuable, and have, since their discovery, materially contributed to the prosperity of the mining interests, not only of California and the adjoining States, but also of Mexico and South America. All the useful metals, such as iron, lead, copper, tin, and zinc, exist in this region. Coal has been discovered in different localities, and marble, gypsum, and valuable building stone, are abundant. Some of the rarer and more

valuable minerals, as the agate, topaz, carnelian, and, in unfrequent instances, the diamond, have been found.

The foreign commerce of California has been immensely enlarged by the opening of direct trade with Asia. This Oriental commerce has been stimulated by the establishment of a line of steam communication with China and Japan, the forerunner of an immense system of navigation centering at San Francisco.

From that excellent work by TITUS FEY CRONISE, entitled "The Natural Wealth of California," lately published by Messrs. H. H. Bancroft & Co., of San Francisco, we extract the following. Those of our readers who would know more of California and her resources, than we here present, are referred to that work for full and reliable information.

California's seven hundred miles of length, by about two hundred of width, embraces the same nine degrees of latitude which, on the Atlantic side of the Continent, include the extensive and populous country stretching from Charleston, S. C., to Plymouth, Mass., a region occupied by portions of ten or twelve States. * * * * * * *

Although this State reaches to the latitude of Plymouth Bay on the north, the climate for its whole length is as mild as that of the regions near the tropics; half the months are rainless; snow and ice are almost strangers, except in the high altitudes; there are fully two hundred cloudless days, every year; roses bloom in the open air of the valleys through all seasons; the grape grows at an altitude of 3,000 feet, with Mediterranean luxuriance; the orange, the fig, and the olive flourish as in their native climes; yet, there is enough variety of climate and soil to include all the products of the northern temperate zone, with those of a semi-tropical character. The great valleys of the interior yield an average of 20 to 35 bushels of wheat per acre; crops of 60 bushels are not uncommon, while as high as 80 bushels have been known on virgin soil, under the most favorable circumstances. The farmer loses less time here than in any other portion of the United States, or in any country of Europe. * *

California is an extremely rugged country, a large portion of its surface being covered with mountains. * * The Sierra Nevada, or snowy mountains, which bound the Sacramento Valley on the east, include a series of ranges which, collectively, are seventy miles wide. The general name for the group is derived from the snow, which is rarely absent from the higher peaks in the range. The Coast Range, which bounds it on the west, also consists of a series of chains, aggregating forty miles in width, bordering the State from its northern to its southern boundary.

There is a most remarkable difference in the structure and conformation of the two series. The Sierra Nevada ranges may be traced in consecutive order for an immense distance, while in the Coast Range all is in confusion and disorder. * * Those portions of this range which skirt the coast in Marin, Sonoma, and Mendocino counties, between latitude 38° and 40° are tolerably well timbered; but south of Bodega Bay and north of Mendocino County, except about Monterey Bay and Santa Cruz, the coast line presents a bleak and sterile appearance. All the valleys in the range which are open to the coast are narrow, and trend nearly east and west. The Salinas, the most extensive of these coast valleys, is nearly ninety miles in length, by eight to fourteen miles in width, a large portion of which is adapted to agricultural purposes—being exceedingly fertile, producing abundance of wild oats and clover, where not under cultivation. The Russian River valley, which also opens to the sea, is also very fertile. Further inland, sheltered from the cool sea breezes by the outer range of mountains, are many tolerably broad and very beautiful valleys, which produce the finest grain, fruit and vegetables raised in this part of the coast. * * The outer coast valleys are generally separated by steep, barren ridges, while those inland, are divided by gently sloping hills, somewhat similar to the rolling prairie lands of Illinois, and are susceptible of cultivation over their entire surface. All the coast valleys are tolerably well watered. * * * * * *

Owing to the peculiarly isolated position of Monte Diablo—standing aloof as it does, from the throng of peaks that rise from the Coast Range, like a patrician separated from plebeians, the beauty of its outline commands the attention of the traveler by land or sea—makes it a landmark not possible to mistake, and causes its summit to be a center from whence may be viewed a wider range of country than can be seen from almost any other point in the State. On the north, east, and southeast, may be seen a large portion of the great valleys of the Sacramento and San Joaquin, with many thriving towns and villages, environed with gardens and farms, while sweeps and slopes of verdure mark the distant plains with hues inimitable by art. In the extreme distance, as a border to this grand panorama, rising range upon range, is seen the Sierra Nevada mountains, stretching along the horizon upward of three hundred miles. In an opposite direction the beautiful valleys of the Coast Range come into view, with all the charming features of prosperous and skilled rural industry, and the broad bay of San Francisco, where are riding at anchor a fleet of ships, from the masts of which the ensigns of nearly all nations may be seen fluttering; while beyond, extending from the water-line to the very summit of the highest hills, is San Francisco City, the home of nearly one-fourth the population of

the State. To the right is seen the forts and earth-works that guard the Golden Gate, while beyond, as far as the eye can reach, is the Pacific Ocean, bearing on its bosom numberless vessels, passing to or fro on the peaceful mission of commerce. * * * * * * *

COUNTIES.—The semi-tropical heat, scant vegetation, and broad arid plains of San Diego and San Bernardino counties, on the south, are as much in contrast with the cold, pine-covered mountain regions of Del Norte County on the north, as the State of Maine is in contrast with Florida. The counties embracing the crests of the Sierra Nevada, which have a climate of almost polar severity, inhabited solely on account of their mineral wealth, can not, with propriety, be classed with those among the foot-hills, which are as important for their agriculture as for their mineral resources; nor can these be classed with those in the Coast Range, or with those in the great central valley.

This extraordinary diversity of climate and soil, the dividing lines of which are so difficult to define, enables California to produce in perfection the grains, fruits and vegetables peculiar to all countries—the olive, orange, pomegranate, cotton, and tobacco flourishing in close proximity to the potato, wheat, flax, and rye—and insures the growth of the finest wools in districts where the vegetation is of a tropical character.

SOUTHERN COUNTIES.—San Diego, San Bernardino, Los Angeles, Santa Barbara, San Luis Obispo, and Kern counties, comprise what is generally considered Southern California. Although only six in number, these counties embrace nearly one-third of the territory of the State. They contain about 50,000 square miles, or more than 30,000,000 acres of land, three-fourths of which is adapted to agricultural or grazing purposes—much of it being the very garden of the State, producing the greatest variety of fruits, grain, and vegetables.

COAST COUNTIES.—Monterey, Santa Cruz, Santa Clara, San Mateo, San Francisco, Alameda, Contra Costa, Marin, Sonoma, Napa, Lake, and Mendocino counties, located along the Coast Range, are classed under this head. They embrace only a small portion of the territory of the State, but contain the greater portion of its wealth and population, and are the chief centers of its trade, commerce, and manufactures.

NORTHERN COUNTIES.—Humboldt, Trinity, Klamath, Del Norte, Siskiyou, Shasta, and Lassen counties, comprise Northern California. They embrace a territory extending from the fortieth to the forty-second parallel of north latitude, and from the one hundred and twentieth to the one hundred and twenty-fifth degree of longitude west.

MOUNTAIN COUNTIES.—Plumas, Sierra, Nevada, Placer, El Dorado, Amador, Alpine, Calaveras, Tuolumne, Mariposa, Mono, and

Inyo, embracing the main chain of the Sierra Nevada mountains, are considered the mountain counties. They are comparatively small in size, and although containing nearly all the important gold and silver mines in the State, the whole territory of the ten principal mining counties is not as large as that of the pastoral county of San Bernardino.

VALLEY COUNTIES.—Tehama, Butte, Colusa, Sutter, Yuba, Yolo, Solano, Sacramento, San Joaquin, Stanislaus, Merced, Fresno, and Tulare counties, located in the great central valleys, between the Sierra Nevada and the coast ranges, are classed as valley counties.

CLIMATE.

The climate of California is too much varied to be considered as a whole. It might be regarded almost as a heterogeneous mixture of the tropical and the arctic. From the Capital city (Sacramento), under the noonday sun of the summer solstice, with a temperature of from 90° to 100°, exceeding the extreme summer heat of the Atlantic States, you will see the snows glistening on the Sierras at no great distance. And by taking the cars on the trans-continental railroad, a few hours of travel will transport you to an arctic landscape. On the other hand, embarking on the steamer for San Francisco, at two o'clock in the afternoon, and traveling in the opposite direction, before night you are shivering in the cold sea-breeze which sweeps up the bay.

It is not necessary to journey so far in order to experience the same transition. You have only to cross any of the mountain walls which separate the ocean and bay from the interior, and which dam out the cold ocean atmosphere.

There are essentially two climates in California, the land climate and the sea climate. The latter derives its low temperature from the ocean, the water of which, along the coast, stands at from 52° to 54° all the year round. The evenness of the ocean temperature is owing to a steady current from the north, which is accompanied also by winds in the same direction during the entire summer season, or rather from April to October, inclusive. Almost daily, during this period, a deluge of cold, damp air, of the same temperature as the ocean over which it has passed, is poured upon the land. It is mostly laden with mist, in dense clouds, which it deposits at the foot-hills and on the slopes of the highlands, or carries a short distance into the interior, wherever there is a break in the land wall.

The land climate is as nearly as possible the opposite in every respect. In summer and autumn it is hot and dry. It undergoes various modifications from the configuration of the surface of the earth. Even the mountains, which retain the snow to a late

period, present a high temperature in the middle of the day; and the presence of snow on their summits in June is owing to the great mass which has accumulated on them, rather than to cold weather.

A large district of territory lies between the jurisdiction of the two climates, and subject to their joint influence. It is composed chiefly of valleys surrounding the bay of San Francisco, and penetrating into the interior in every direction. There is no climate in the world more delightful than these valleys enjoy, and no territory more productive. Whilst the ocean prevents the contiguous land from being scorched in summer, it also prevents it from being frozen in winter. Hence, ice and snow are not common in the ocean climate. The difference in temperature is comparatively slight between summer and winter. * * *

The absence of warm weather in the summer months is characteristic of the coast climate, and strikes a stranger forcibly. The most ordinary programme of this climate for the year is as follows, beginning with the rainy season:—The first decided rains are in November or December, when the country, after having been parched with drought, puts on the garb of spring. In January the rains abate and vegetation advances slowly, with occasional slight frosts. February is spring-like, with but little rain. March and April are pleasant and showery, with an occasional hot day. In May the sea-breeze begins, but does not give much annoyance. In June, just as warm weather is about to set in, the sea-breeze comes daily, and keeps down the temperature. It continues through July and August, occasionally holding up for a day or two, and permitting the sun to heat the air to the sweating point. In September the sea-wind moderates, and there is a slight taste of summer, which is prolonged into the next month. The pleasant weather often lingers in the lap of winter, and is interrupted only by the rains of November or December. * * *

Though the nights in the interior are not so uniformly cool, yet there are few localities, even in the valleys, where they are too warm for sleeping, even though the day temperature may have reached 100°. This is a remakable feature of the climate of the Pacific States, and it has an important bearing on the health, vigor, and character of the population. * * *

In speaking of the "rainy season," strangers will not infer that rain is perpetual, or nearly so, during that time. The term is employed only in contrast with the dry season, and it implies the possibility rather than the actual occurrence of rain. In more than half the winters there is not a drop beyond the necessities of agriculture, and even in the seasons of most rain much pleasant weather is interspersed. If the winter be not extraordinary, it is generally regarded as the most pleasant season of the year. In the intervals of rain it is bright, sunny, and calm. It is spring

rather than winter. The grass starts as soon as the soil is wet. At Christmas, nature wears her green uniform almost throughout the entire State, and in February and March it is set with floral jewels. The blossoms increase in variety and profusion until April, when they are so abundant in many places as to show distinctly the yellow carpeting on hills five miles distant. * *

In the Atlantic States, the storms of approaching winter put a stop to the labors of the farm, and force both man and beast into winter quarters. In California it is just the reverse. The husbandman watches the skies with impatient hope, and as soon as the rains of November or December has softened the soil, every plow is put in requisition. Nothing short of excess or deficiency of rain interferes with winter farming. The planting season continues late, extending from November to April, giving an average of nearly six months for plowing and sowing, during which the weather is not likely to interfere with out-door work more than in the six spring and summer months of the Eastern States.

Owing to the absence of rain, harvesting is conducted on a plan which would confuse the ideas of an Atlantic farmer. There are no showers or thunder gusts to throw down the grain, or wet the hay, or impede the reaper. The hay dries in the swath without turning. The grain remains standing in the field awaiting the reaping-machine, it may be, for a month after it is ready to cut. And so it remains when cut, awaiting the thrasher. When thrashed and sacked, the sacks are sometimes piled up in the field a long time before removal. In September or October, the great grain-growing valleys may often be seen dotted over with cords of grain in sacks, as secure from danger by weather as if closely housed.

Owing to the absence of severe frosts, the gardens around San Francisco supply fresh vegetables all through the winter. New potatoes often make their appearance in March. In May the potatoes are full-grown, and the largest weigh a pound or more. * *

Many of the interior valleys are subject to malarious fevers, but not generally of a severe type. The various forms of disease which prevail elsewhere are found here, but they present no peculiarities worthy of comment. Insanity, and diseases of the heart and blood-vessels, are frequent, but this is due rather to moral and physical causes than to climatic influence.

The relation of the climate to pulmonary affections presents its most important aspect. Many persons threatened with lung disease, or but slighty affected by it, have regained their health completely by immigration. But the benefit is to be ascribed to the sea-voyage, and to circumstances incident to change of residence, more than to the curative effect of the climate of the Pacific coast. To individuals in other countries suffering with tubercular disease in its established stages, this country offers no valid prospect of

benefit. Consumption is developed in California as it is in most other portions of the temperate zone. The chilly winds of the ocean climate in summer, while they will, in many cases, brace the system against debility, and enable it to resist the invasion of disease, depress the vital forces in other cases beneath the power of resistance. On the other hand, the extreme heat of the interior leads to the same injurious results by its exhausting operation. But there is a wide range of climate between the two extremes, more favorable than any other on the Pacific slope to pulmonary patients, and much more favorable, it may be added, than the climate of the Atlantic States, either in summer or winter. The same may be said of the southern section of the State in general. The winter of California everywhere exhibits great uniformity in its relation to pulmonary invalids, and is decidedly superior to the corresponding season on the Atlantic slope.

LAND, LABOR, AND TRAVEL.

In general terms, land is very rich and very cheap. Improved farms can always be bought of persons ready for a change, at moderate prices. It may, also, be said that the toils and discomforts of the first year of emigrant life are less by sixty per cent. than in the Western Atlantic States. * * * * *

HINTS TO THE IMMIGRANT.—The immigrant will meet with some difficulty in seeking a location for a settlement in California, of which he should be advised. We have only two navigable rivers, and but two railroads completed as yet. Several new railroads are projected, however, and will probably soon be constructed through a number of fertile valleys. The cost of railway traveling is ten cents a mile, and steamboat fare is generally five cents per mile. On all the stage lines twenty cents per mile is the usual fare, except when an occasional opposition reduces it for a short time. Distances are great between settlements, and the cost of living is tolerably high. To get suitable land at a low price requires considerable travel by stage. On this account the immigrant, to save his purse, should take counsel of some trusted friend, and confine his examination to a few localities.

Farmers in the Atlantic States naturally prefer the neighborhood of a river, or at least of a running brook. We have but two streams worthy the name of rivers, properly so called—the Sacramento and its confluent, the San Joaquin. The lands on their border are almost entirely swamp, or subject to overflow. They breed fevers and mosquitoes, and have few tributaries that are not dry, or nearly so, in summer, and also are subject to wide overflow in winter. As a general rule, the immigrant will find it safer to seek other localities than those near the water-courses.

Almost everywhere in the valleys water is obtained at moderate depths, and wind-mills can be readily employed. This suffices for the family, the cattle, and the gardens of the farmer. His grain crops do not need summer water, nor do his fruit-trees when once well rooted.

Farm Labor.—In no other part of the world do farm laborers receive such liberal wages, or fare so well, as in California. Wherever practicable, labor-saving machinery is introduced, materially lightening, in many cases, the burden of his manual toil. In driving the gang plow, now coming rapidly into use, he performs what was before one of the hardest services of the farm, with very little physical exertion, being comfortably seated and riding along, with no other labor than that required to guide his team and gauge the easily managed machine. The wages of a good farm hand are from twenty-five to thirty dollars per month, the year round, or from fifty to sixty dollars during the harvest season, board and lodging included—the former always good, and the latter, considering the mildness of the climate, generally comfortable. In the principal agricultural districts he is rarely ever pinched with cold, though there is much suffering from the excessive heat that prevails in the interior and southern portions of the State during summer. In the regions adjacent to the coast, however, there is little to complain of from the extremes of climate either way, while the whole country may justly be pronounced extremely healthy.

Railroads.—During the session of the Legislature, ending March 30th, 1868, a large number of franchises for laying down railway tracks in different parts of the State, were granted to the various companies applying for the same, the most of whom, it is supposed, will at once proceed with the work of their construction. There are now about three hundred miles of railroad completed and in operation in the State, a very small extent, considering the urgent necessities as well as unexampled facilities that exist for making these improvements.

Steamship Lines.—From the port of San Francisco, there issue three ocean steamship routes to foreign countries, there being more than double that number of important coastwise routes. The Pacific Mail Steamship Company dispatch steamers regularly, four times a month to Panama, and monthly to China. The California, Oregon, and Mexican Steamship Company, dispatch a vessel monthly to the following ports on the coast of Mexico, viz.: Cape St. Lucas, Mazatlan, Guaymas, and La Paz; also, tri-monthly to Portland, Oregon; bi-monthly to Trinidad, Crescent City, and Umpqua River; monthly to Victoria, Alaska, and Sandwich Islands; tri-monthly to Santa Barbara, San Pedro, and San Diego, and weekly to Santa Cruz, Monterey, and San Luis Obispo. The North American Steamship Company sends a steamer bi-monthly

to San Juan del Sur, Nicaragua, touching at Manzanillo, the steamers of this company sometimes sailing alternately to San Juan and Panama.

IMMIGRATION.—Every industrial interest is at this time exceedingly prosperous. Farming in all its branches, of grain, fruit, grape, wool, and cattle-growing, has paid munificently for several years past, having, to all appearance, an equally prosperous future before it. Lands of good quality, unless sought after in the immediate vicinity of San Francisco, are cheap and procurable on easy conditions; the opportunities for making money in the mines are still excellent, while labor of nearly every kind is in demand at liberal prices, which the prospective requirements for railroad construction promise to sustain for a long time to come. The various overland routes are also in better condition for travel than ever before, the more central being settled up for a long stretch at each end, with numerous towns and stations at intervals along it, enabling the emigrant to obtain supplies without carrying them, as formerly, all the way through. There will, moreover, be but little to fear from Indian molestations on this route hereafter. To such, then, abroad, as may entertain the idea of an early change of locality, or who may ever have contemplated a removal to California, it may be said that the present is every way an opportune moment for emigration to this State.

The following we take from the June (1868) Report of the Agricultural Bureau; Hon. HORACE CAPRON, Commissioner:

The average value of wild or unimproved land in Yuba County is $4 per acre; this land is productive, and will produce, according to our reporter, if fallowed, 60 bushels of wheat to the acre, and 40 to 45 bushels if not fallowed, and other cereals in proportion. In Monterey the price ranges from 50 cents to $2.50 per acre. In Del Norte, $1.25 per acre; chiefly mountainous, and all heavily timbered, mostly with red-wood. In Amador our reporter says the wild lands are worthless. In Tuolumne these lands belong to the United States, and may be taken up by settlers; the valleys have a rich deep alluvial soil, capable of raising almost any crop with irrigation. The hills are volcanic, calcareous, granitic, and slaty, and furnish the best of sites for vineyards, and yield good crops of grain if sown early in the season. Our San Francisco correspondent, speaking for the State, says:—

We have so sparse a population, however, that there are vast quantities of good arable land which can be purchased of Government at from $1.25 to $2.50 per acre, while some of the large grant owners are willing to sell good lands, but not very eligibly situated for market, at the same prices. The Central and Western Pacific Railroad Companies also sell land within a few miles of

the lines of their roads at from $2.50 to $10 per acre. Almost all of the valley lands of the State may be termed wheat lands, the great majority, with proper plowing, producing from 15 to 40 bushels per acre. Almost any product of the north temperate zone can be raised on the ordinary lands in California. Besides the parties named the State has large quantities of swamp or overflowed lands (which can be reclaimed at moderate expense), and school lands in different sections which can be purchased at from $1 to $2.50 per acre.

The soil of the valley lands, is universally productive, while the mountain ranges furnish an abundance of timber. A large lumbering business is done in Tuolumne, a ready market being found in the valleys of that county, Stanislaus, and Joaquin, at from $25 to $50 per thousand feet. In Amador the timber is mostly cut, except in the higher eastern portion of the county bordering on the Sierra Nevadas, where remains some of the finest timber in the world, while in Del Norte and other counties the red-wood timber is almost inexhaustible. The mineral wealth of this country is too well known to require detailed mention here.

Wheat and barley are the staple products of all the valley counties except Los Angeles, El Dorado, and Sonoma. In Los Angeles and El Dorado wine-growing is the great interest; a large quantity of grain, however, is raised in the former county. In Sonoma the wine-growing interest predominates, although grain of all kinds is raised in considerable quantities, that county being the second wheat-growing county. Wheat and wine are considered the most profitable crops to raise.

The products of the leading crops of the State for 1866 were as follows, in round numbers: Wheat, 14,000,000 bushels; barley, 11,600,000 bushels; oats, 1,860,000 bushels; hay, 360,000 tons; potatoes, 2,000,000 bushels; peanuts, 182,000 bushels; beans, 240,000 bushels; butter, 4,500,000 pounds; cheese, 2,100,000 pounds; wine, 1,800,000 gallons; wool, 5,230,000 pounds. Total value about $28,000,000, being several millions in excess of the gold products of the State.

Santa Clara, Solano, and Yolo are the largest wheat-growing counties, aggregating more than half the crop of the whole State in 1866. In barley, Santa Clara, Monterey and San Joaquin take the lead, producing more than one-third of the entire crop. Santa Clara also leads in hay, cheese and silk; Mendocino in oats; Sonoma in potatoes; Sacramento in hops; Marin in butter; Santa Barbara and Los Angeles in wool, and the latter county in oranges, lemons, grapes, wine, and brandy.

A variety of wheats are sown in California, but the white Australian appears to be the favorite, as it makes better flour, is productive, and rarely has any drawbacks in bad seasons; white

Chili, Sonora, and Club wheat are also sown in the interior counties. In Del Norte a white winter wheat is grown and preferred by many farmers because it is a winter variety, and also on account of the superior quality of its flour. In this county, winter wheat is sown from September 1 to November 1, and the spring varieties from February 1 to April 15, harvesting about the 10th of August; all grain sown by hand. In Monterey wheat is sown from November to March, according to the amount of rain. Our Tuolumne reporter says "the land should be summer-fallowed, and the grain sowed before the first rains; it may be sowed as late as March, but is liable to injury by the drought; harvest last of May or June." In Yuba they sow from October to February, and harvest from 1st of June to 15th of July. None drilled.

Our San Francisco correspondent writes:—

"Seeding on summer fallow and dry-plowed land has been done in September and October, but the experience of our farmers is that wheat sown prior to March in good seasons produces favorable crops. Harvesting of barley commences in the southern part of the State early in May; wheat is generally two weeks later, most of the crop being gathered in June, new wheat coming to market about the 1st of July. Plowing is, on an average, not over four inches deep, some being only three inches, while in exceptional cases the soil is disturbed from six to twelve inches, but such instances are very rare. A practice called 'volunteering' prevails among farmers, which consists of simply harrowing by implement, or, in many cases, brush-harrowing, viz.: dragging limbs of trees over stubble, so that the waste grain of one harvest is made the seed for the next."

The average yield of wheat is reported at twenty bushels to the acre.

Wild oats, when cut at the proper time, are said to make the richest hay. When there is sufficient range, horses, cattle, and sheep pasture the entire year, the rainy season not excepted. In the greater portion of the State the natural grasses are turned into hay while standing, the extreme dryness of the climate being the cause. Cattle feed on this dried grass, which is very nutritious until the rains come, which destroy all the nourishment. When the rains come early, in October or in November, the new grasses spring up in a few days, and if they get three or four inches high, frost does not stop their growing, and stock have excellent feed the season through. When the rains come in December, followed immediately by frost, cattle suffer greatly, and large numbers of horses, sheep, and cattle are lost. The crop of natural grasses, when not fed down too much, seeds itself and yields from one to two tons of hay per acre.

Our Tuolumne reporter says that pasture is good from March

to October, but stock will subsist the entire year. Usually the only expense is cost of herdsmen. Several correspondents estimate the cost of pasturing stock at from 50 cents to $2 per head per month—the average $1 per head.

The fame of California as a fruit-growing State is too widely extended to need lengthy notice in this chapter. The capabilities of the entire valley lands of the State, and also the foot-hills of the mountain range, to produce fruit, are perhaps unsurpassed, if equaled, in any part of the world. All the fruits of the temperate zone flourish well, and such semi-tropical fruits as oranges, figs, limes, citrons, olives, almonds, and pomegranates are produced in great abundance. It is difficult to say which kind of fruit is most profitable, as all pay well until the supply exceeds the local demand. At present it is said that almonds and Madeira nuts pay best, though figs and oranges are quite profitable.

Our Tuolumne correspondent says that grape-vines bear a good crop the third year from the cutting. Vineyards produce from four to five tons of grapes per acre, or from 500 to 700 gallons of wine. Grapes for wine-making sold last season at $30 per ton. The price of wine one year old varies from 40 cents to $1.25 per gallon, according to quality. Apple, pear, peach, plum, cherry, fig, orange and pomegranate come into bearing the third year, and produce good crops. The price the past season for best apples, pears, and peaches, was $40 per ton, plums 5 cts. per pound. Our Yuba correspondent says: "Nearly all the fruits are adapted to our soil and climate. The apple, peach, plum, nectarine, apricot, cherry, quince, pear, fig, pomegranate, orange, lime, lemon, currant, &c., not only do well but excel any thing I ever saw. The grape for wine and raisins is perhaps destined to be one of the fruits most extensively cultivated. The yield is immense and the profit very great. A vineyard of 10 acres will yield a clear profit of $5,000 per annum, and orchards from $250 to $1,000 per acre, according to the kinds of fruit."

A correspondent in Amador County says that he gathered three crops of apples from the same tree, last year.

Los Angeles had, in 1866, nearly 2,000 lemon-trees, 9,000 orange-trees, 3,000,000 grape-vines, and made 600,000 gallons of wine, and 20,000 of brandy. Sonoma had over 2,800,000 vines, and made nearly 200,000 gallons of wine and nearly 7,000 gallons of brandy. Santa Clara had 2,000,000 vines. In the State, according to the assessors' reports, there were in 1866, nearly 1,700,000 apple-trees, 480,000 pear-trees, 1,090,000 peach-trees, 234,000 plum-trees, 28,000 almond-trees, 17,000 English walnut-trees, 13,000 olive-trees, 3,000 lemon-trees, 11,000 orange-trees, and nearly 20,000,000 grape-vines. The numbers of each growing rapidly.

On the 25th of September, 1867, a letter was addressed to

the Mayor of San Francisco by certain citizens of Louisiana, making inquiry respecting the advantages California offered to immigrants, with a view of migrating thither.

The State Board of Immigration returned the subjoined reply:—

Query.—"Are the public lands entirely absorbed?"

Answer.—No. There are millions of acres yet in the keeping of the Federal Government officers, which can be had for $1 an acre in gold. Only in the neighborhood of the great thoroughfares, the navigable rivers, the fragments of railways yet constructed, the mining camps and the like, has ever the Government surveyor yet erected his theodolite. The whole population of the States of California, Oregon, Nevada, and the Territory of Washington, does not come to a million of souls, and they have more land to live upon than the entire German family of thirty nations and 60,000,000. There are plenty of good spots where small colonies of immigrants may squat upon and await the coming (for years) of the Federal Government surveyor, and when he shall come, the $1 an acre demanded by the Government will have long before been realized out of the land.

In the San Joaquin valley, 60 miles back from Stockton (a city of about 5,000 inhabitants, and one night's journey by steamer from San Francisco), plenty of land can be got for $1 in gold per acre from the Government office in Stockton. This valley is about 100 miles long, a width varying from 10 to 30 miles, through which streams, navigable for flatboats, flow down to the Sacramento River. The soil is deep and rich, and the bottoms near the water are exceedingly fertile, and able to support abundance of kine. This valley would absorb 100,000 settlers.

We have received from Mr. Merry, of Red Bluff (a growing town of about 2,000 inhabitants, at the head of navigation on the Sacramento River, and to be reached in two days by steamer from San Francisco, at an expense of from $10 to $12), an elaborate report of the agricultural and business facilities in that section. He says:—

"The slopes of the Sierra hills and Coast Range, being well watered, afford good pasturage for sheep and horned cattle during the year. The arable land of the country lying along the 'bottoms' of the Sacramento River and its tributaries bear grain crops of from 16 to 40 bushels of wheat to the acre. The best lands in the county (Tehama County) are covered by Mexican grants, to which patent titles from the President of the United States have been obtained. These lands can be purchased from present holders for $10 to $15 per acre. They are adapted to the growth of grain, potatoes and beets. All kinds of vegetables and fruit grow in the greatest luxuriance. Sheep-breeding pays

well. The flocks in this county number about 100,000 sheep. The quality of wool has a very good name in the San Francisco market, and brings 20 cents a pound. Butter will pay well for skillful dairymen, and cheese also.

"For swine there is no better county in the State. Over 4,000 head of grain-fed hogs have been sold out of the county during the past year. A pork and bacon-packing house in this place is doing an extensive business. The establishment of a woolen-mill here would be the best investment of capital extant. Lumber is cheap, firewood plenty, and water-power abundant, going to waste. An iron foundery would pay well here. Money is dear, it brings two per cent., and two and a half per cent. per month. Farm laborers get $30 per month and board. Blacksmiths and wagon-makers do well. Some have got rich. Good board can be got for $20 to $25 a month. Cottages can be got for from $8 to $15 a month rent. Town lots for building can be entered at Government prices. Common necessaries from the farms are cheaper than in San Francisco. Imported articles are about 30 per cent. higher. As to vine-culture it is the best locality for that industry in the State. Here is the celebrated Bosquejo vineyard, where the 'Gerke' wine is made, which is a fair sample of our vine-lands. Thousands of acres of equally good lands can be had here for $1.25 an acre."

The section of country referred to by Mr. Merry would absorb and maintain 100,000 persons.

In the counties south of San Francisco—Monterey, for instance—two days' journey by stage from Francisco, large tracts of the richest land, owned by easy-going people of Spanish descent, can be purchased or rented upon very advantageous terms; purchased for $1 or $2 an acre, or rented on shares for one-fourth of the annual product of the land. The chief and greatest cost is the cost of fencing.

In many places the old Spanish settlers own tracts of 30,000 to 50,000 acres, unfenced and undivided, over which numberless flocks of sheep and cattle roam, and breed, and die, without control or much care from the proprietors, who live in rude ease, and almost secluded from the outside world. Their slumbers will soon be broken by the hum of busy immigrants, who will come crowding by sea and land into their fruitful territories. Farther south, toward Los Angeles, the best lands can be purchased from those old-fashioned settlers for $1 an acre, or even less. There is very little timber to be cleared from any of these lands.

To go upon these lands, several families should form themselves into villages or companies, and go out together on the land and help each other. This co-operative system is sure to make immigrants happy and prosperous. Farming implements can be got here better and cheaper than in England, or in any of the Ameri-

can cities of the Atlantic. Farm horses can be purchased for $20 to $40 apiece; milk cows, $20 to $30 each. The expense of transporting one person from this city to the Government land may be set down at $20. Markets can be found for any quantity of grain, butter, wool, and fruits. The vine is slow in its returns, but quite certain to pay at the end of four or five years, and will yet be the great occupation of Californians. The climate in most parts of California is moderate; in winter there is neither frost nor snow.

The population of California is about 500,000. About 90,000 of these have votes, and are entered on the great register. Being an American citizen, and residing three months in one locality, gives the privilege of voting for all public officers. The voting is done in one day, by ballot, all over the State, and there is no property qualification required in the voter or in the public officer. A person born out of the United States must be two years resident in the United States, have sworn fealty to the American Government, and have registered his name on the great register before he can vote.

There are about 50,000 Chinese, and about 10,000 negroes in the State. Neither of them have any political rights allowed them. They can not vote for any public officer, nor is it likely that they ever will enjoy such privileges. The Chinese are looked upon with much jealousy by the white race. Opposition to them has assumed an organized shape, and there are numerous anti-coolie clubs existing in our city, whose object is to resist and discourage the importation and employment of Chinese labor. About 8,000 Chinamen are employed on the Pacific Railway works; about 20,000 are working in and around the mines, and the remainder are scattered over the State engaged in doing the lowest kind of work about the cities and towns; washing, gardening, dealing in fish and vegetables, &c.

Question 2.—"Is there a demand for labor?"

Answer.—We are anxiously and carefully gathering information from every side, from reliable sources, with the intention of forming a small hand-book for the intending immigrant. We are full of the great idea of inviting an extensive immigration from Europe and from the Southern and Eastern States, to the Pacific slope, but we shudder at the thought of misleading any one. It is almost unnecessary to repeat that we have room and work for millions of people in our fields and mines, but the great trouble is to support people while they are finding the work suited to their strength, their habits, and their experience. The idea that fills the minds of many persons in making toward California is, that they shall go a gold-hunting in the mines, make lucky hits, and return at some distant day to their old homes in Europe or the Atlantic States to enjoy their good fortunes. This idea has

been the unseen rock that wrecked many an emigrant to this golden land. None should come to the Californian *mines* but *miners*.

On the first discovery of gold in California, and for several years afterward, every kind of laborer went into the mines, and many of them did very well; but of late years the Chinese got in, and swarmed over the "placer" or stream mines, and as they work in well-organized companies, live upon little, they are able to scrape a living from the oft-washed sands in the older washing-grounds of the earlier miners. The principal mining now carried on in California is quartz mining, which is as like coal or iron mining as possible—penetrating the bowels of the earth several hundred feet—men working in gangs, in "watches" of eight hours each shift, so that the work never stops, night or day. For this kind of work miners get $4 a day. Their board and lodging in the neighborhood of those quartz mines comes high, about $8 or $10 a week; as a general rule, two and a half days' wages is required to pay for a miner's board and lodging for a week. A great deal of the work on the Pacific Railroad on our side of the Rocky Mountains is performed by Chinamen, under white overseers. They get about $1 a day for their labor. White men could get that wages and board, but they won't work for it. A dollar a day is the lowest notch which the strong man's labor has touched in any part of California. Common labor, according to skill, ranges up to $1.50 and $2 a day. We are not now talking of skilled mechanical labor, such as carpenters, bricklayers, plasterers, smiths, machinists, foundery men, tailors, shoemakers, and the like. The labor of these sorts brings $3 to $5 a day in all the cities and in all the towns of the Pacific coast. As to clerks and light porters, and those who are always waiting for an easy berth or something to "turn up," there is little encouragement for them. The cities are full of them. This sort of helpless people are the production of an erroneous system of education, which has weaned the boy from labor, and left the man a helpless, pitiable mendicant.

You are, doubtless, impatient to learn, then, what sort of people are likely to do well here, and we answer, any sort who are thoroughly determined to work—men and women, young and old.

The lowest wages for labor among us is about twice the wages of New York, and four times the wages obtained in Great Britain, Ireland, or Germany. The price of wheaten flour is about one-half what it is in Liverpool or New York—$8 a barrel of 196 pounds just now. Tea, sugar, and coffee about the same as in England or New York. Clothing and house-rent about double the English rates, and about the same as in New York. All the foregoing rates are in gold.

Question 3.—"Is mining more profitable than farming?"

Answer.—This question is one still more difficult to answer.

Farming has lately acquired a fixed character. The fine qualities of wheat and flour which California yields—the vast quantities of wool, of butter, of fruit and wine, and the high prices these products realize in New York and Liverpool, have latterly decided great numbers of our population to go into farming. One only drawback which farming in California will ever experience, and that will occasionally arise from long seasons of drought.

The last three years the seasons were very well mixed with rains about the time they were wanted, and sunshine when wanted; and our farmers have had splendid crops and obtained high prices. About four years ago there was a long drought and a cattle famine was experienced. Flour ran up to very high rates, and there was much suffering among the working people. This has passed away, and is forgotten in our present prosperity, but it is well for all emigrants facing to this country, to be made aware of these things.

We have, in general, about seven months of the year when there does not fall a drop of rain, yet vegetation is nourished by copious dews. Then we have four or five months when it pours down plenteously, and this rain it is that brings us the means to obtain the food that lies intact in the earth, and enables our miners to wash the clay and sand that contains the gold dust.

The total produce of our gold and silver mines may be set at $50,000,000 to $60,000,000 a year. Our farming and general agricultural products will very soon, if they do not now, foot up to $50,000,000 worth a year. The value of the wheat and flour shipped from California since last harvest comes up to $9,000,000; and as fast as good ships come into the harbor they are engaged to take out wheat and flour, wool, hides, &c. The general demand for all sorts of mechanics in this city, and throughout the State, was never better. The wages, as I have said, range: For Chinamen, $1 a day; common laborers, $2 a day; skilled mechanics, $3 to $4 a day—some of superior skill, $5 a day; female servants, $15 to $25 a month, and board; farm laborers, $30 a month and board. All these prices are gold, and all our dealings here are managed on a gold basis.

Question 4. "Are there any diseases peculiar to California?"

Answer. The climate of California is the most healthful to be found in the world. It is equable all the year round. The thermometer ranges from 50° to 90° throughout the State. We lay from 32° to 42° north latitude. We have neither frost nor snow, except on the high mountains of Sierra Nevada, and some of the mountains in the Coast Range. The only drawback to health is experienced in the neighborhood of the mines, where the water is over strongly impregnated with mineral matter, which generates ague and peculiar fevers; but in the agricultural regions the people live on from year to year, their whole lives, without expe-

riencing a day's sickness, and the children multiply in numbers, and develop in symmetry and beauty beyond those of any race on the face of the globe.

Next to the employments under the head of "ordinary agriculture" is the vine culture, which is peculiar to California; its vines and wines are now celebrated all over the world. But a few years ago, it was not supposed the vine would flourish anywhere but in the southern region and Los Angelès. Latterly, experiments have demonstrated that it will flourish in the acclivities around the mining camp as well as amid the sheep-walks and pastoral plains and valleys; that whether it is pressed into wine or distilled into brandy, it will reward the labor bestowed upon its cultivation. The California wines begin to make their way in the New York market, and each new year will confer on their quality more richness and more reputation.

The grape-vines of California, when five years old, yield plenteously; one has only to own a half-dozen acres, well planted with vines of that age, to realize a life-long *independence*. In a few years from the present time, the wine and silk of California will form some of the leading articles of its export.

The fruits of California are now so rich and plentiful that the farmers begin to dry, and press, and ship them to the Atlantic cities, from whence, but a very few years ago, we imported dried fruits, flour, &c.

The raising of the silk-worm has been commenced in California, and has succeeded. It is proven that the climate is quite as favorable as that of France or Italy for this branch of industry. Arrangements are in progress to start a silk factory. The success of this experiment will lead to national results by and by. We shall soon come to the raising of tobacco, beet-root, and the manufacture of beet and cane sugar, cotton, flax, linen, hemp, and hops, for all of which the soil and climate are admirably fitted. Some cotton has been raised in the southern parts of the State in a desultory way, but the soil awaits the enterprising hands of toiling men, to bring about those great results from the vast and varied material that sleeps neglected in the soil, and hovers over us in the overhanging climate.

We are building small coasting schooners of 50 to 200 tons. All those craft are well employed in carrying lumber, coal, and the produce of the fields into market, and latterly groups of those small craft have gone fishing for cod in the North Pacific with great success. The salmon and other fish caught in our waters are certainly the best in the world.

Our progress in manufacture is infantine and rude. Three or four woolen mills and one cotton factory are all that California can boast of, but these are doing well, and in good time others will start. Our tanneries are numerous in city and country, and

their manufactures well liked and in good demand. We should say the business is healthy, with fair profits. Soap and candle factories are experimenting on the native tallow and bees-wax of the country—this is the land of bees and honey.

They have begun one factory for making boots and shoes, and so far it is prosperous, employing two hundred hands. There is room here for many paper and flour-mills. We have two glass factories, on a small scale, doing well, and any number of iron founderies, all at full work. There has been a glove factory lately started, and is doing well; also a rude pottery-ware factory. We want half a dozen hat factories, in which the hat from the foundation would be made, trimmed, and finished. We have plenty of printers and an abundance of newspapers. The population of San Francisco is about 120,000. We have 8 morning and evening newspapers, and 12 or 15 weeklies. We have a score of banks, 15 insurance companies, any number of hotels, boarding-houses, and public schools. About half the population are native-born Americans from the Atlantic States; the other half is divided among the Germans, Irish, French, Spanish, Chinese, and negroes. The Jews have two synagogues, the Roman Catholics eight churches, and the Protestants a dozen or so. Take them as a whole, they are the most hospitable and generous crowd of citizens to be found in any seaport round the whole earth. No man nor woman will be suffered to want food here, and no industrious man nor woman need be afraid of casting their destiny in the fertile grazing lands of California.

We hope these few hints on our new and growing State will be useful. The worst time for traveling through our interior districts are the winter and spring months, when the roads are softened by the rains. Rains usually begin in December and continue down to April.

We remain, respectfully,

H. A. COBB, *President.*
THOMAS MOONEY, *Vice-President.*
J. W. McKENZIE, *Secretary.*

SAN FRANCISCO, *October* 29, 1867.

The following letters will prove interesting:—

OFFICE CALIFORNIA IMMIGRATION ASSOCIATION,
SAN FRANCISCO, *September* 9, 1868.

F. B. GODDARD, Esq.:—

MY DEAR SIR: * * * There are large bodies of Public Lands yet to be had in this State, in almost every county, for $1.25 per acre, legal tenders. Many Spanish grants are now being subdivided and sold at very low figures. Farmers, mechanics, laborers, are all in demand, and command as follows: Laborers, $60 to $75 per month; good farmers, $30 to $50 per month in gold, and board; mechanics, according to trade, from $3 to $6 per day. Lands are to be had from the Spanish grant holders as low as $1.50 and $2 per acre, up to $5. The central and southern counties of the State offer superior inducements at present to a new population.

Wheat-growing now is the chief occupation of the farmers. Our crops the last year were very abundant, but wheat commands today, in our market, $2 per 100 lbs.

Climate excellent; farmers plow and sow all winter. Coal, timber, silver, gold, quicksilver, and every mineral, abound. Every variety of crop raised, and every nationality of people here reside.

I am, sir, very truly, your ob't servant,

JOHN MULLEN,
Agent California Immigration Association.

PLACERVILLE, *August* 10, 1868.

FRED'K B. GODDARD, Esq., New York City:—

DEAR SIR: * * * About one-fourth of El Dorado County is embraced within the survey of the Central Pacific Railroad Company, and alternate sections belong to the railroad company, who will sell for $2.50 per acre, which can be paid in installments. Government land is sold at $1.25 per acre. The land in question is probably the best in the State for the culture of the grape-vine, fruit-trees, &c., &c. These vineyards become productive in the course of three or four years, and orchards are matured quite as rapidly. There is a belt of country of about thirty miles in width, running east and west, and for several hundred miles running north and south, that is thoroughly adapted to the production of grapes, peach, apple, plum, pear, and fig trees, of all the different varieties. Much of the land spoken of is unsurveyed, a small portion of which has been improved by settlers. In some portions of the country embraced within the boundaries above indicated, the settlers raise very good crops of hay, barley, oats, and wheat, and for about six months in the year it is well adapted to grazing pur-

poses. These vineyards often yield two, three, and four tons to the acre. Of course, much depends upon the care and attention bestowed by those in charge of these vineyards. The fruits produced upon these foot-hills are superior in flavor to those raised in any other portion of the State. Grapes are worth from $20 to $60 per ton, depending upon the kind and quality.

Price of labor from $25 to $40 per month, and board. Chinese from $20 to $25 per month, or about $30, they boarding themselves. Wages always paid in gold or silver coin (greenbacks not used as circulating medium). The labor supply is not good. German laborers would naturally be most in demand, as they usually are the most peaceable and industrious citizens.

School facilities throughout El Dorado County are good. We have good teachers and a very fair system.

The climate is excellent, and can not be surpassed anywhere on the globe. When the mercury in the thermometer stands at 90° and 100° in the shade, the heat does not feel particularly uncomfortable. There have been in some localities in this county more or less miasmatic fevers, fever and ague, &c., although this is now disappearing. To market, Placerville is about twelve miles east of the Sacramento Valley Railroad; length of road, about fifty miles. Religious advantages keep pace with population, like all new countries. People here are not particularly distinguished for their religious enthusiasm; and, while the church edifices are large and commodious, the attendance is not proportionally large. There is room for a development of the religious sentiment throughout the whole of this State.

The people here are cosmopolitan, and represent every nationality on the globe, but the preponderance is American.

In conclusion I would say, that what is most needed here is, a class of industrious men and families who are willing to adopt the same system of domestic economy that is practiced in the older States. * * Wood for fuel is abundant, the soil is generous, and produces all that is necessary to supply every material want of the body, and all who are sober and industrious can, in a very short time, realize and enjoy a home where they can, practically rest "under the shade of their *own vine and fig-tree.*" * * *

Respectfully, &c.,

GEORGE G. BLANCHARD.

LOS ANGELES, *August* 11, 1868.

DEAR SIR:—* * * The valleys of Los Angeles and San Bernadino are large and fertile, producing cereals equal to those of the

northern counties. In this county, grapes, oranges, lemons, limes, and in fact all the semi-tropical fruits, grow to perfection. There is little or no government land south of Monterey, all the land of any intrinsic value being covered by Spanish grants, which are now being subdivided and thrown into market, upon easy terms, at prices varying from three dollars to one hundred dollars per acre, according to locality. Most lands require irrigation for the production of all crops except cereals, and rise or fall in value as they are affected by facilities for irrigation. The climate of Los Angeles County is very mild, being free from extreme heat or cold. In this city it seldom frosts sufficient to do any injury. The soil is more fertile than even the valley of the Mississippi, as I know from personal observation. The valley of this county lies between the Pacific and the Coast Range of mountains. The principal port is San Pedro, twenty miles from this city, to which a railroad is now being constructed. The port is an open roadstead, but storms are so rare upon this coast, that vessels seldom experience any difficulty in landing and receiving freight. The greater part of Arizona is supplied with merchandise through this city, and the trade with Utah and Montana Territories is very large in the winter months. The population of this city is about 10,000, one-third of whom are of the Spanish race and Indians, the other two-thirds of mixed nationalities.

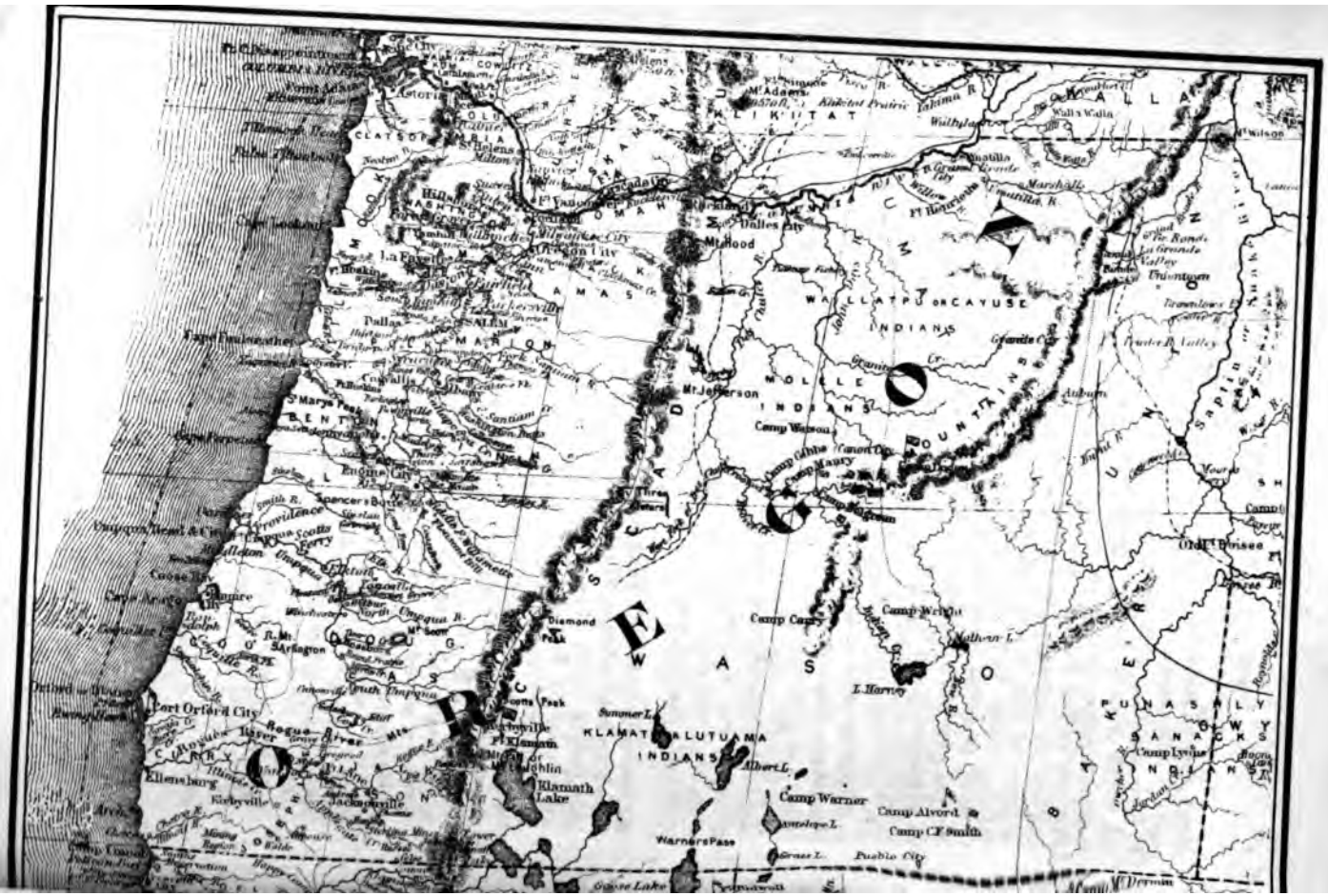
The city is now improving more rapidly than any commercial city in the State, except San Francisco. The agricultural products of the county this year will amount to more than $2,000,000. The population of the county is about 25,000, and the assessment rolls show an increase of eight hundred tax-payers in the last twelve months. Of the amount received last year for agricultural products, over half a million dollars was for the orange crop alone. There is fine agricultural land in the county not now under cultivation, to support a population of 150,000 souls. Farm labor is most needed, and brings $25 per month; mechanics are also in demand. Good schools, both public and private, are numerous; also one college and one female seminary of high grade.

This city is five hundred miles south of San Francisco, with good ocean steamers and numerous sailing vessels for the accommodation of travel and trade.

The land is mostly untimbered, the foot-hills giving a good supply of fire-wood. Building lumber is shipped from Santa Cruz and Oregon, and sells at $40 per thousand.

I am, very respectfully, yours truly,

A. J. KING.



Astoria
Mt Adams
Klikitat Prairie
Yakima R.
Walla Walla
Wallula
Umatilla
Grand Ronde
Marshall
Ft Henrietta
Ft Hoskins
Dalles City
Mt Hood
Oregon City
La Fayette
Ft Hoskins
Dallas
Salem
Cape Foulweather
Cape Perpetual
Cape Arago
Coose Bay
Umpqua Head & City
Providence
Spencers Butte
Eugene City
Cowallis
Mt Jefferson
Camp Watson
Camp Gibbs
Camp Maury
Camp Bulgram
Camp Carry
Camp Wright
L. Harney
Diamond Peak
Cort Orford City
Rogue River
Ellensburg
Kirbyville
Jacksonville
Klamath Lake
Summer L.
Albert L.
Camp Warner
Camp Alvord
Camp C.F. Smith
Warners Pass
Pueblo City
Goose Lake
Old Ft Boisee
Camp Lyons
Saptin or Snake River
Grand Ronde
La Grande Valley
Unionton
Granite Cr.
Auburn
Mt Wilson
Camp Lyons
Mt Dermin
Camp Mt Dermin

OREGON.

Resting upon the northern boundaries of California and Nevada, and lying along the Pacific Ocean for 275 miles, is the promising and prosperous State of Oregon. Its wonderful beauties, and its great natural advantages and resources, long since attracted the attention and inspired the pen of Washington Irving, and the development and progress of later years bear pleasing testimony to the prophetic importance which that gifted writer attached to this then comparatively unknown region.

To the emigrant whose inclinations tend to agricultural pursuits, and who seeks to found a home where he may soon become independent, in a State which possesses a fertile soil and a healthful climate, Oregon emphatically commends herself as in all respects answering his requirements. Until late years, owing to its remoteness from the great channels of intercourse, the popular impression of Oregon has been that it was a vast and sparsely settled region, almost "out of the world." But the people of Oregon are as fully alive to all advanced ideas and to the spirit of the age, as the people of any other State. They are beating full time to the quickstep of Progress; thirty steamers navigate her rivers, and there are two railroads in process of construction at present, one on the eastern and one on the western side of the Willamette, starting from Portland and going south to meet a road from Marysville, California. Another road is projected from the Dalles down the north side of the Columbia, to cross at St. Helen —the probable crossing of the Puget Sound road. Also a road from Eugene City to the Humboldt River, to connect with the Union Pacific, going through a pass in the Cascade Range at the head-waters of the Willamette. Churches and school-

houses are established, and society is rapidly becoming more cultivated and refined.

J. Ross BROWNE thus speaks of Oregon in his Report:—

Oregon is peculiarly an agricultural and fruit-growing State, though by no means deficient in valuable mineral resources. Possessing a climate of unrivaled salubrity, abounding in vast tracts of rich arable lands, heavily timbered throughout its mountain ranges, watered by innumerable springs and streams, and subject to none of the drawbacks arising from the chilling winds and seasons of aridity which prevail further south, it is justly considered the most favored region on the Pacific slope as a home for an agricultural, fruit-growing, and manufacturing population. As yet it is but thinly settled, a fact owing in part to the injudicious system pursued under the donation act of 1852, by which large tracts of land (320 acres to single settlers, 640 to married couples) were held by persons who were unable to cultivate them; and in part to the insufficiency of communication with the markets of the world. These drawbacks, however, will soon be remedied by the establishment of railroads, the increase of steam navigation, and the consequent accession of population. The wonderful richness of the valleys, the extraordinary inducements to settlement by families, the beauty of the scenery, and healthfulness of the climate, must soon attract large immigration. The writer has traversed this State from the Columbia River to the southern boundary, and can safely assert that there is no equal extent of country on the Pacific slope abounding in such a variety of attractions to those who seek pleasant homes. The Willamette, the Umpqua, Rogue River, and many others, are regions unrivaled for farming and stock raising.

In the last Report of the General Land Office, Commissioner WILSON gives the following interesting and comprehensive description of Oregon, its agricultural resources, climate, fisheries, unsold lands, &c., &c.:—

Oregon has California on the south, and Washington Territory on the north, extending from the Pacific Ocean to Snake River, the latter constituting a part of its eastern boundary. It is 350 miles long from east to west, and 275 wide from north to south, containing 95,274 square miles, or 60,975,360 acres, being about half as large as the State of California.

The Coast Mountains and the Sierra Nevada, traversing California, continue northward through Oregon; the latter, after leaving California, are named the Cascades. Near the southern boundary the chain throws off a branch called the Blue Mount-

ains, which extend northeastwardly through the State, passing into Washington and Idaho.

The course of the Cascades through the State is generally parallel with the shore of the Pacific, and distant therefrom an average of 110 miles. In California the direction of the Coast Mountains and coast valleys is that of general parallelism with the sea-shore; the mountains sometimes approaching close to the shore and then receding miles from it, leaving belts of arable land between them and the ocean. In Oregon the Coast Range consists of a series of high lands running at right angles with the shore, with valleys and rivers between the numerous spurs having the same general direction as the highlands.

In reference to climate and agricultural capacities, Oregon may be divided into two distinct parts, the eastern and western, lying respectively on the east and west sides of the Cascades.

WESTERN OREGON.

Western Oregon, the portion of the State first settled, and containing the great preponderance of its present population, is 275 miles in length, with an average width of 110, being nearly one-third of the whole State, and contains about 31,000 square miles, or nearly 20,000,000 acres, all of which is valuable for agriculture, for grazing, or for timber-growing, excepting the crests of some of the highest mountains. It is more than four times as large as Massachusetts, nearly three times as large as Maryland, and is greater in extent than the united areas of Maryland, New Jersey, Massachusetts, and Rhode Island.

PRODUCTIONS.

The valleys of the Willamette, the Umpqua, and Rogue rivers, are embraced within this portion of the State. The soil of these valleys is very rich and deep, resting upon a foundation of clay, retentive of the elements of fertility. Larger portions of the valleys are open prairies, just rolling enough for the purposes of agriculture. All the productions common to temperate regions, whether of the field, orchard, or garden, can be cultivated here with the highest degree of success. The chief products of the field are wheat, oats, barley, rye, hay, maize, buckwheat, flax, hemp, sorghum, peas, beans, millet, broom-corn, pumpkins, and potatoes; of the garden, turnips, squashes, cabbages, tomatoes, onions, cucumbers, gourds, beets, carrots, and parsnips; and of the orchard, apples, pears, plums, cherries, apricots, quinces, peaches, and grapes. Many of these productions are of mammoth growth, and superior quality and flavor.

The yield of wheat is frequently forty and fifty bushels per

acre, and when the land is properly cultivated, the crop never fails, and in no State or Territory can an equally remunerative crop, year after year, be cultivated with less labor or trouble. As to fruits, no country could produce finer apples, pears, plums, or cherries. The trees come into bearing several years earlier than usual in the Atlantic States, and a failure in the crop is rarely known.

The Willamette Valley is more exposed to the sea-breezes than the more sheltered ones of the Umpqua and Rogue rivers, and the nights are too cool for corn and the peach to succeed well. Rogue River valley, being more sheltered than the valleys to the north of it, appears admirably adapted to the grape, and its culture is becoming a more prominent interest every year, while the peach, Indian corn, and sorghum, it is reported, succeed better here than in any other portions of western Oregon.

Skirting the prairie land of these valleys, and intervening between them and the mountain ranges on either side, there is a succession of hills and ridges, frequently of rounded cone-shaped form, rising sometimes to the height of a thousand feet, and half a mile removed from each other at their bases, covered to their summits with thick grasses, and numerous springs gushing from their sloping sides, with scattered trees of oak, maple, and alder, not so thick as to retard the growth of the native grasses, nor too sparse to shade the grazing flocks and herds. This is called the hill country, and is a region of mixed prairie and woodland, hill and valley, a large portion of it being excellent farming land, and in horticulture and gardening is equal to the plains; but its chief characteristic is grazing, and no country, by its configuration, the quality of its soil, and the temperature of its climate, could be better adapted to sheep, and wool-growing is already a leading interest, and is constantly increasing, from the success that has attended this branch of industry.

CLIMATE, ETC.

The climate of this part of the State is mild and equable. The winters are usually short, with but little fall of snow. The pastures are generally green throughout the year, and a winter so cold as to require dry food for stock is of rare occurrence. The nights are always cool, even in midsummer. From November to April the rainy season prevails. A clear season usually occurs in February or March, continuing several weeks or a month, and followed again by a month more of rainy weather. Between April and November rain falls sufficient to prevent drought, but seldom to injure the harvest or produce freshets. The summer is dry, yet seldom to the destruction of crops. The Oregon farmers realize the ne-

cessity of irrigating fields by artificial means, much less than those of southern California.

Back of the hill country, on each side of the Willamette valley, are the Coast Mountains on the west, and the Cascade Mountains on the east. Between the head of the Willamette and the Umpqua valleys a mountain spur called the Calapooia Mountains runs across from the Coast to the Cascade Range. A similar spur, called the Umpqua Mountain, separates the Umpqua and the Rogue River valleys, and another, having the same transverse direction, called the Siskiyou Mountain, on the boundary between Oregon and California, separates the valleys of Rogue and Klamath rivers.

TIMBER.

All these mountains, together with the Cascade and Coast ranges, are covered with immense quantities of the sugar pine, the white and yellow pine, the nut pine, the red fir or Douglass spruce, black fir, yellow fir, western balsam fir, the noble fir, the Oregon cedar, and the fragrant white cedar; all trees of extraordinary size and symmetrical form, standing in dense forests, and some of them rising to the height of two hundred and fifty, and even three hundred feet, with trunks from four to fifteen and sometimes twenty feet in diameter. Less striking and important are the western yew, the western juniper, the Oregon oak, the Oregon alder, the Oregon ash, the hemlock, myrtle, and other trees.

The Coast Mountains, from San Francisco to the mouth of the Columbia River, are heavily timbered with the red-wood, pines, firs, and cedars. Immediately north of San Francisco, the forest is composed almost exclusively of red-wood. Going northward the trees become numerous, and with the red-wood are found the sugar, and the yellow pine, forming about the Oregon boundary one of the most magnificent forests in the world; the red-wood and sugar pine attaining nearly equal dimensions, trees of both species being not uncommon twelve to fifteen feet in diameter and three hundred feet high.

After crossing the Oregon boundary the red-wood becomes scarcer, and ceases entirely in the vicinity of the Umpqua River. It is succeeded by the arbor-vitæ or Oregon cedar, and the red and black firs, and these form the almost impenetrable coating of vegetation which covers the Coast Mountains, from Port Orford to the Columbia; the red-fir here attaining its greatest dimensions, fully equaling those of the red-wood and sugar pine.

The forests of Oregon, like those of California, contain many of the most valuable timber trees in the world, many of which would furnish straight timber a yard square and a hundred feet long, valuable for furniture, for domestic architecture, for ships'

spars, for the powerful frame work of heavy machinery, for bridge building, for railroad purposes, and the general purposes of the farmer, the millwright and the shipwright.

The soil upon which these forests grow is generally good, the undergrowth over the greater extent of it being hazel, often three inches in diameter and twenty feet high, elder, alder, dogwood, myrtle, maple, ash, and willow, together with such other shrubs and grasses as indicate rich, moist, and first-rate soil. Upon the Coos and Coquille rivers, in the Coast Range, the land has been cleared and its fertility found extraordinary, producing all kinds of grains and vegetables in abundance.

Throughout these extensive mountain forests, there are immense tracts lying sufficiently even for cultivation; but lands producing timber of such valuable qualities and in such extraordinary quantities should be preserved as timber lands through all time. As the larger trees are felled, the forest should be allowed to reproduce itself again from the younger and smaller trees, and the shoots and sprouts that will rapidly spring up. Nor can the land be devoted to any more profitable purpose than the production of these monarchs of the forest, many of which are of rapid growth, and attain a great height and size even in the lifetime of a human being. A million feet of lumber at the moderate price of ten dollars per thousand feet, are worth ten thousand dollars, which would be equivalent to one hundred dollars per acre for one hundred years, and from all the information received touching the character of these amazing forests, it is believed to be no exaggeration to suppose them capable of producing one million feet of lumber to the acre. Although much of it may be comparatively worthless at present, for want of means of transportation to market, yet the time is approaching when that inconvenience must in a great measure cease to exist. The demand for lumber is annually increasing in all parts of our own and other countries, and upon the extensive plains west of the Mississippi but little timber exists, and the first settlers must of course have supplies. A railroad from the head of navigation on the Columbia or Snake River, to intersect the Union Pacific at Salt Lake City or other points east of that, would open up a market for the lumber of Oregon and Washington Territory that would annually increase for many years to come, and over which it would be sent, not only to supply demands east of the Rocky Mountains, but in Nevada, and down the Colorado to southern Utah and Arizona.

EASTERN OREGON.

Eastern Oregon, extending from the Cascade to Snake River, is an elevated, rough, broken country of hills and mountains,

benches, table-lands, deep gorges, almost inpenetrable cañons, with numerous fertile and arable valleys. The greater portion is incapable of tillage, but furnishes an extensive scope for grazing. The climate is drier than on the west of the Cascade Range; is subject to greater extremes of heat and cold and to sudden changes of temperature, but generally milder than the same latitude east of the Rocky Mountains.

The tillable lands in this portion of the State are along the Columbia River and in the valleys of the Umatilla and Walla Walla rivers, in the valleys of Klamath Lake, Lost River, Goose Lake, Harney and other lakes, and Alvord and Jordan Creek valleys, in the southern part of the State, and in the valleys of Grande Ronde, Snake, Powder, Burnt, Malheur, and Owyhee rivers, in the eastern part.

Numerous thriving settlements, with extensive improvements in agriculture and manufactures, exist in the valleys of the Columbia, the Umatilla, and Walla Walla rivers, and grazing is extensively carried on. The soil of the valleys is highly fertile, and its agricultural capacity, so far as tested, is found excellent, producing small grains, fruits, and vegetables in great abundance and of very excellent quality. The locality enjoys advantages in reference to market and business, on account of its contiguity to the navigable waters of the Columbia, and the mining districts lying to the east and south.

The country bordering on the Des Chutes and John Day rivers and the declivities of the Blue Mountains, is fit only for grazing land, and for this purpose much of it is excellent. Much good land exists in the southern part of the State for agriculture and for grazing, but being comparatively unsettled, little of it has been subjected to the test of experience.

In the eastern part of the State, in the valleys of Snake River and its tributaries, many settlements exist; the soil is generally rich, and agriculture flourishes. Indian corn, melons, and many varieties of garden vegetables, are said to succeed better in some of these valleys than on the Willamette, on account of the higher temperature of the summer. Timber is less abundant in eastern Oregon than west of the Cascades, and the oak is wanting in the eastern, which is found upon the lower hills and in the valleys of western Oregon in small groups or in solitary trees, and with its low and spreading form, imparting such a picturesque beauty to the landscape; but on the sides and summits of the Blue Mountains, and the various spurs and ridges which traverse this part of the State in different directions, are found the fir, cedar, hemlock, pine, and other varieties of forest trees, which will furnish an abundant supply. The Blue Mountains are noted for the best quality of timber and natural grasses, which cover their sides from base to summit.

The SALMON FISHERIES of Oregon form an important item, and may be indefinitely increased to meet almost any imaginable demand. These fish make a fall and spring run from the ocean, penetrating most of the Oregon rivers to the smaller branches from which they flow, and stem the powerful current of the Columbia for more than a thousand miles. Vast quantities are annually caught, and the business of putting them up for commerce is prosecuted with great success.

COLUMBIA RIVER.—The Columbia is the chief river of Oregon, the largest on the Pacific coast, and one of the largest in the United States. For thirty or forty miles from its mouth, it expands into a bay from three to seven miles wide. It is navigable to the Cascade Mountains, one hundred and forty miles from its mouth, when navigation is interrupted by rapids for a distance of five miles, over which a railroad portage is constructed. On the east side of the Cascades it is again navigable for forty-five miles to the Dalles, and again becoming unnavigable on account of rapids, another railroad fifteen miles long has been built from the Dalles to Cebillo. From the latter point the river is navigable, and daily or tri-weekly steamers are running to Umatilla, eighty-five miles; Wallula, one hundred and ten miles; and to White Bluffs, one hundred and sixty miles farther up the stream.

The Oregon Steam Navigation Company had, in 1866, eighteen or twenty first-class steamboats on the river, and warehouses at all the principal towns, and had transported to the Upper Columbia, in the four years ending in 1865, 60,320 tons of freight, and carried up and down the river nearly 100,000 passengers.

By constructing a portage from White Bluffs, one hundred and fifty miles north, and cutting off an impassable angle in the river, the stream is again struck at a navigable point close to the forty-ninth parallel, from which steamers can run from one hundred and fifty to two hundred miles farther north to near the fifty-third parallel, in the Cariboo country, the famous gold region of British Columbia. The Oregon Steam Navigation Company expected to have steamers running upon these upper waters in 1867. The Snake or Lewis River, one of the principal affluents of the Columbia, is navigable from the mouth of Powder River, one hundred and ten miles from Wallula, a distance of one hundred and fifty to two hundred miles, into southern Idaho, and within two hundred miles of Salt Lake City; and the placing of several steamboats upon this part of Snake River during the present season was another object of that enterprising corporation. Whether these enterprises have been realized, and the navigation of the Columbia and its tributary thus extended, this office is not informed. If they have been, steam navigation from Salt Lake City to the mouth of the Columbia is practically secured, with the aid of about three hundred miles of wagon road.

Oregon enterprise already contemplates the construction of a railroad from Wallula to Salt Lake City, through the gold regions of Idaho, a distance of five hundred and fifty miles, crossing the Blue Mountains by a very favorable pass. From Wallula the Pacific Ocean is reached by the navigation of the Columbia at the distance of three hundred and twenty miles farther, or eight hundred and seventy miles from Salt Lake City to the mouth of the Columbia, making the shortest route from Salt Lake to the Pacific, and avoiding the great labor of surmounting the Sierra Nevadas.

In all parts of this State, vast tracts of agricultural, grazing, and timber lands, both surveyed and unsurveyed, are open to settlement under the homestead and pre-emption laws, and in western Oregon large quantities may be obtained by private entry.

Farming and grazing are very profitable in the neighborhood of mining settlements, and not only competence but wealth is within the reach of the industrious and enterprising, who, selecting a farm and a home in a favorable locality, either in eastern or western Oregon, devote themselves faithfully to improving and developing its resources.

The population of the State, which at the present time is estimated at over 100,000, is steadily increasing, and when the means of communication, now in contemplation, are open, the increase will be still further stimulated.

The undisposed-of public lands in the State amount to about fifty-two million seven hundred thousand acres.

We take the following extracts from a premium essay written for the Oregon State Agricultural Society, by Mr. W. Lair Hill :—

Climate.—Eastern Oregon possesses a climate much resembling that of the Upper Mississippi Valley, but not so cold. It is dry and open; usually somewhat bleak, owing to the large proportion of prairie land, but seldom bitter cold, the mercury rarely falling below zero in the extreme of winter. Last winter, however, it was exceedingly cold in this region; but that was a winter unexampled in severity everywhere in the Pacific States.

Spring in eastern Oregon is fine, early, and open. Summer is hot and generally dry, with cool nights. Variations of temperature, corresponding with differences of altitude, are observed, sometimes amounting to several degrees at places only a few leagues apart. Autumn frosts begin some time in October, but it does not become wintry till very late. Little rain or snow falls

except in the mountains. Eastern Oregon is exposed to an almost continuous breeze which sometimes swells into quite a gale, but storms never occur. The wind in summer is from the southwest.

Western Oregon has a moist, mild, and peculiarly uniform climate. Except in rare cases the winter is not cold nor the summer hot more than two or three days in succession, and extreme heat or cold never occurs.

It is rarely necessary to feed stock for more than a fortnight, and frequently not at all during the whole year.

Soil and Extent of Agricultural Lands.—The two natural divisions of Oregon differ in respect to the quality of their soil as well as in climate. The plateaux of eastern Oregon have a moderately rich soil whose chief component is silicia, and containing but a small amount of vegetable matter. Little effort has been made to test its capabilities for agricultural purposes until very recently. The experiment, so far as tried, has proved exceedingly gratifying, and many persons maintain that these uplands are destined to be the first grain lands in the State. But the natural adaptation of these immense tracts is to grazing, cattle herding, and bucolic pursuits. Rolling prairies and level plains of almost illimitable extent stretch out from the foot of the Cascade Mountains almost to the eastern border of the State, and are covered with luxuriant bunch-grass (*festuca*), affording an inexhaustible pasture for any amount of stock. This grows in large tufts not joined together by their fibrous roots, as is the case with most other grasses. It grows to different heights, from six to eighteen inches, according to the quality of the soil. In nutritive properties it is not excelled by any grass known. Attaining its full growth about the time the dry season commences, it cures into a fine, flavorous hay, which, owing to the absence of dew in this region in the summer, remains excellent until the autumn rains come, when the whole country is again covered with green grass.

Mountain streams, having their sources in the mountain chains, intersect these table-lands, flowing through valleys and *rondes* of various dimensions and amazing fertility. The valleys of the Des Chutes and its tributaries are all that have been extensively tested with cereals, and they have yielded very large crops. Vegetables of nearly all varieties yield almost fabulous crops. Indian corn does as well in eastern Oregon as in any State in the Union, and will soon become a staple production. Fruit promises finely. This is thought to be as good a fruit country as that west of the Cascade Mountains, so justly denominated the "fruit garden of America."

Its hot summers admirably adapt eastern Oregon to the culture of sorghum or Chinese sugar-cane; and sufficient trial has been made to warrant the assertion that this plant can be produced

here as successfully as in any of the Northwestern States. Judge Laughlin, of Wasco County, who has paid some attention to the cultivation of this plant, in a published letter of his, dated January 12, 1861, says: "I have cultivated some (sorghum) the past two years, and find it grows remarkably well. * * It will produce double as much food as any thing (else) I can raise on the same amount of land. * * Mr. Phelps, of this county, has made some very nice sirup, and intends cultivating a crop for that purpose next season."

The cost of making this sirup will not exceed fifty cents per gallon. Its market value can not be less than one dollar per gallon throughout the country, and two or three times as great in the mines. Planted in April, the sugar-cane matures well, and yields a large per cent. of saccharine juice. A farmer, who would give his entire attention to cultivating sorghum and manufacturing sirup in eastern Oregon, could not fail of amassing a large amount of money in a very short space of time. The extent of these valley lands is not definitely known, as no official survey has ever been made of the region in which they lie, excepting comparatively small bodies in the vicinity of the Des Chutes. This stream, the largest affluent of the Columbia in Oregon east of the Cascade Mountains, flows through a valley large enough to maintain a population of many thousand persons. It has already some considerable settlements, mostly composed of stock raisers.

John Day River waters a valley much larger than that of the Des Chutes, and of equal fertility. It is unsettled, and offers great inducements to farmers desiring homes near the mines, where a market will always be ready, and produce will command high prices. It is about thirty miles east of the Des Chutes, and has the same general trend, both running north into the Columbia.

Powder River runs through the largest valley in eastern Oregon, and probably equal to any other in the excellent quality of its soil. Emigrants from the East are fast settling up this valley, and the prospect is that it will soon contain a large population. No settlements were made on Powder River previous to the discovery of the gold mines on its head-waters, but it is stated that a large number of the emigrants of this season have already selected their future homes there, and expect soon to be surrounded by an industrious and thriving community, and enjoying all the amenities of civilization.

Burnt River has its course through a broken region, very fertile, but better adapted to grazing than to agriculture. This stream is southeast from Powder River, and, having the same general direction, flows northeast into Snake River.

East of Burnt River the country is exceedingly uninviting. What valleys there are, are small and frequently unproductive. The land, impregnated with alkalies, has scarcely any vegetation

growing upon it except artemisia, or sage. Grass is scarce and of poor quality, even along the streams. Of his entering the Burnt River country from this inhospitable waste, in his official explorations, General Fremont says he now came into "a mountainous region where the soil is good, and in which the face of the country is covered with nutritive grasses and dense forests; land embracing many varieties of trees peculiar to the country, and on which the timber exhibits a luxuriance of growth unknown to the eastern part of the continent and to Europe. This mountainous region," he continues, "connects itself in the southward and westward with the elevated country belonging to the Cascade or California Range, and forms the eastern limit of the fertile and timbered lands along the desert and mountainous region included within the great (Utah) basin."

The Grande Ronde, lying a few leagues north of the Powder River valley, is a beautiful circular valley, some twenty or thirty miles in diameter, watered by a stream bearing the same name. Surrounded by high hills or spurs of the Blue Mountains, its amphitheatrical form, relieving its smooth, grassy surface, intersected by a bold stream fringed on either margin with small trees, renders it sufficiently charming, to say nothing of the fertility of its soil, which is unsurpassed. Settlements are being made in this valley, also, by the emigrants who have come over the plains, but it will not all be occupied this season.

The Klamath basin, it is said, contains a large tract of good agricultural lands, but this may be questionable, as no experiments have yet been made to test its qualities for farming purposes. It is a fine grazing district; even in the midst of December it has been found covered with fresh and luxuriant grass. The Klamath is a magnificent lake, possessing one feature in particular, which lakes do not ordinarily have, viz.: *it has no water in it.* It is a fact, though not generally known, that this lake is nothing more than a broad savannah, sometimes covered in places with a thin sheet of water for a brief period, but never entirely inundated, and capable of being easily drained and reduced to cultivation.

Goose Lake, Lake Albert, and some others of considerable size, lie in the northern part of the Utah basin, and are said to be surrounded by large tracts of as fine agricultural land as can be found in the State. That there is some good country around these lakes, is certainly true; but enough is not known of this region to warrant a positive statement that they are very extensive.

Rogue River valley, occupying the extreme southern portion of western Oregon, and extending into California, is a broken country, or series of valleys, separated by rolling highlands, covered in some places with dense forests of fir and cedar, and in

others thinly timbered with oak, and finely set with grass. It is a very good country for farming, and a superior one for stock raising. Rogue River is not navigable on account of its numerous cascades. Like all the western portion of the State, this valley is well watered by numerous mountain streams, which are sufficiently large to afford motive-power for running any amount of machinery. It is thinly populated, and would furnish homes for an indefinite number of immigrants. Jacksonville, its principal town, is a place of some importance as a mining town.

The Umpqua Valley is a beautiful country, drained by the Umpqua River, a stream of some magnitude, and navigable 25 miles from its mouth for ocean vessels. This fertile valley contains 1,000,000 of acres. It is principally rolling or hilly land, the face of the country in many places forcibly reminding one of the rugged districts of Vermont, or the charming stories he read when but a child of the mountain home of the Swiss.

Numerous tributaries of the Umpqua, some of them quite large, flow through the valley, affording excellent water privileges. Perhaps no country is more conveniently provided with good soil, good timber, and good water, than the Umpqua Valley. Its population is about 4,500, leaving ample room for 20,000 more, allowing 160 acres to each family of four persons. Roseburg and Winchester, the most important places in this valley, are pleasant villages.

But the most important agricultural district in western Oregon, and probably in the whole State, is the Willamette Valley. It is separated from the Umpqua by the Calapooya Mountains, a densely timbered belt, having an altitude of about 5,000 feet, and extending from the Cascade to the Coast Range. This valley is drained by the Willamette River, flowing north into the Columbia, and which is navigable to the distance of 130 miles from its mouth, direct measure, with only a single obstruction. the falls at Oregon City.

No person can survey the Willamette Valley, with its alternations of rich meadow-like prairies, undulations, and beautiful streams, without feeling that he beholds the most delightful spot in America. The agricultural country lying along the banks of the Willamette, includes an area nearly equal to that of the entire State of Connecticut, with a combination of advantages inferior to no other section of the United States. Mr. William H. Knight describes this valley as "possessing a soil of unsurpassed fertility, a mild and genial climate, an abundant growth of timber, large natural pastures, where stock may range unsheltered the year round, an excellent commercial position, superior facilities for transportation, and a rapidly increasing population." This is stating the case in rather too strong a light, and requires some qualification in two of its particulars. The population of the

Willamette valley has not increased very rapidly for some years past, owing to causes which will become manifest when the subject of commerce is discussed. And the other modification proposed is, that we sometimes have a "cold snap" of two or three weeks' duration in the winter, and the last winter still longer, so that stock may not "range unsheltered the year round" every year, and should not be forced to do so any year, as the continuous rains of the winter months are very injurious to all kinds of domestic animals. Aside from this slight inaccuracy, Mr. Knight's description is certainly a very correct one, and the impulse given to the State by the recent discovery of extensive gold fields on the eastern border of the State, can not fail to make it become speedily true in respect to the increase of population.

This valley is mostly smooth prairie land, large bodies of it undulating, but not hilly, interspersed at intervals, never greater than a few miles, often much less, with streams of various sizes flowing in across the valley from the mountains on either side. Ranges of low hills, covered with oak timber, are common throughout the valley.

Some of the largest affluents of the Willamette, as the Santiam, Yamhill, and Tualatin, are navigable to considerable distances into the interior; while there is scarcely one which does not afford an ample volume of water to drive any desired amount of machinery for milling and manufacturing purposes.

The Willamette, in common with all this region of the Pacific coast, belongs to the tertiary period. Shells and ligneous petrifactions are numerous, and mammal fossils have been found in various places, indicating a very recent formation.

The soil of western Oregon may be divided into four general classes, viz.:—

1st. A brown clay loam, of good quality, thinly timbered with oak, producing good grass, and affording fine stock range. It is found chiefly along the spurs of mountains or extended ranges of hills, never in the level prairie.

2d. A dark or black porous soil formed by the admixture of vegetable mold with the clay loam just described. This soil occurs only in the valleys close by or between the mountains, and is unrivaled in productive power. Both of these classes are thirsty, and suffer whenever the summer drought is of very long duration.

3d. A grayish calcareous sandy loam of exceedingly fine quality, covered with a thick turf of grass, and admirably adapted to the cultivation of cereals, especially wheat, oats, and barley. This class embraces five-sixths of the entire valley, including most of the prairie, and much of the oak-timbered land. It is little affected by drought, and though not naturally porous, is pulverized with great facility, and is exceedingly mellow.

4th. A strictly alluvial soil, lying along the immediate banks of the river, and composed of sand, vegetable matter, and various decomposed earths, washed by the current from above. Most of this class of soil is overflowed in extraordinary freshets, which, however, never occur in the growing season of the year, and it is unexcelled in fertility.

Many small and very rich valleys lie along the sea-coast, and will doubtless yet become valuable. Among them are the Tillamook, situated on a bay of the same name, the Celets, the Yaquina on Yaquina Bay and river, the Coquille on Coquille River. The Coquille and Tillamook already contain settlements of some magnitude.

HARBORS.—There are already opened four ports of entry in this State. The most important harbor is that of the Columbia River, but it is not the only one likely ever to assume much importance. Umpqua River, Port Orford, and the Coquille want nothing but the settlement of the rich districts surrounding them to bring them into consideration as commercial points, while vessels have entered several others and found good harbors. Yaquina Bay, first brought to notice only a year ago, is said to be an excellent harbor, extending thirty miles into the coast, and easy of access from the heart of the Willamette valley.

HEALTH.—It would seem invidious to discriminate in favor of any portion of the State of Oregon in respect to its salubrity. Every thing that nature could do to render a country perfectly healthful has been done for this State. The mountain air, not less than the mountain water, has a vivifying influence; and the gentle breezes of summer, coming fresh from the sea, are a pleasant and effectual preventive against all the violent diseases ordinarily to be feared in dry and sultry regions.

The climate of Oregon is thought to be unfavorable to the health of persons who are predisposed to pulmonary affections. This is probably true. Notwithstanding this general opinion, however, it is found that fewer persons die here of consumption, in proportion to the population, than in any one of the New England States. And it is certainly beyond question, that in every other respect, there is no other State in the Union worthy to be compared with this for salubrity of climate.

Persons are frequently met with here who had been unable to perform any labor for years before leaving the East, on account of ill health, but have become rugged and strong in this country, and are now regularly engaged in their callings without any physical inconvenience whatever.

MISCELLANEOUS.—Some peculiarities and special adaptations of this State deserve to be more particularly noticed, though space will not allow this to be done at length.

SHEEP.—A very intelligent writer of New England calls Ore-

gon a "mammoth sheep pasture." From what has been exhibited of its soil, climate, and mines, it will be perceived that, with equal propriety and no greater allowance of hyperbole, it might be denominated, also, a mammoth grain field and vegetable garden, and a mammoth gold placer. In a country eminently fitted by nature for so many branches of business as Oregon, discrimination in favor of any one particularly, will seem unwarranted, not to say unjust. But certainly if Oregon has a *specialty*, it is her pre-eminence as a wool-growing country. Until very recently, little attention has been paid to the matter of sheep-raising, but it is now becoming one of the staple interests of the State. Sheep thrive better here than in any other State. Disease among them is exceedingly rare. They increase here faster than in the East, and the wool is of excellent quality. Only one manufactory of woolen goods is yet in active operation. This is located at Salem. Another is in course of construction in Linn County. The wool clip of the State, in 1861, amounted to 444,000 pounds. That in 1862 (estimated by Mr. L. E. Pratt of the Willamette Woolen Manufacturing Company), is 344,000 pounds. The difference of amount is owing chiefly to the losses of last winter. The average price of wool, in 1861, was 18 cents a pound; in 1862 it was 20 cents. In respect to the quality of Oregon wool, Mr. Pratt says: "There is no inferior wool grown in the State." When the Eastern papers quote the price of "Oregon wool," they mislead dealers to the prejudice of this State, as there are no burs in the country; they probably refer to wool grown in California, and are imposed upon by dealers of that State.

The Willamette Woolen Manufacturing Company turn out, annually, 4,000 pairs of blankets, 10,000 yards flannels, 60,000 yards cloths and tweeds, and 4,000 pounds stocking yarn. The cloths are worth, on an average, $1.12½ per yard; the blankets, $8.

The expenses of the factory are $56,000.

LUMBER.—Every thing has been done which nature could do to make Oregon to the Pacific what Maine is to the Atlantic coast. The best of timber, with unexampled water privileges convenient of access for sea-going vessels, leaves nothing to be desired in this respect but enterprising men who will engage in the business of supplying foreign markets.

FISHERIES.—All along the sea-coast oyster and salmon fisheries might be made highly profitable. The salmon on this coast are not only more abundant, but acknowledged to be of much better quality than those of the Atlantic. Clam and cod fisheries might also be established along the coast.

BEES.—The introduction of bees into Oregon is of very recent date. They prosper well, and produce a large amount of honey. Three years since a hive was worth $150; now it is worth $25.

FRUIT.—Reference has already been made to this, but some-

thing a little more specific is required. For apples and pears Oregon is unrivaled. Cherries thrive passably well. Peaches do not generally succeed well, except some very hardy varieties. Plums are in great abundance, and finely flavored. Quinces and apricots flourish. Grapes are good, especially early varieties. Shrub fruits generally produce exceedingly well. All in all, Oregon is the fruit-garden of America, if not of the world

PULSE of all kinds, like cereals, yield largely.

COMMERCE.—From the geographical position and internal resources already shown, it does not require that much should be said of its commerce. Certain circumstances, however, have prevented the development of the strength of the State in this respect, the principal of which is the law under which the land of Oregon is held. At an early period of the settlement of the country, a law was passed by Congress donating 640 acres of land to each man having a wife—or rather 320 acres each to the man and wife —and 320 acres each to single men settling in the Territory. The result of this large donation has been to render the population of the State so sparse that all interests of the body social, all the nerves of civilization and progress have been completely paralyzed. This effect has been visible more in connection with the commercial than with any other branch of the social economy of the State, unless it be the educational. It is hoped, however, that these detrimental consequences of the nation's liberality will not longer continue to operate as they have done hitherto; since the largeness of the gift has reduced a great majority of the donees to such a condition as compels them to divide their large tracts of land. When this is done, and not before, Oregon will begin to exhibit that degree of prosperity for which God has given her such ample capabilities.

SCHOOLS.—Oregon, though a new country, is not without its school system, and the people of the State manifest an interest in the subject of education which can not fail of raising the intelligence and refinement of the country to a high standard as soon as the population is sufficient. Common schools are kept in almost every neighborhood, and grade schools and academies are located in several places. Limits of space forbid more specific statements.

CHURCHES.—Also the religious statistics of the State will evidence that the immigrant to Oregon need not fear that he is coming to a barbarous or half-civilized land.

THE QUESTION.—It may now be asked, where and on what terms can land be obtained in Oregon. In the western portion of the State, that is in the Rogue River, Umpqua, and Willamette valleys, the best land is occupied. Farms can be had, however, in these valleys, for from $5 to $10 per acre, according to location. There is ample room, and settlement is invited. As

good agricultural land as there is in the world can be bought for $8 per acre in any of these districts.

The land in eastern Oregon is, for the most part, vacant. Homes may be obtained by simply occupying them under the provisions of the homestead law, which took effect on the first day of January, 1863, or by the provisions of the pre-emption law. These lands are not yet surveyed, but no difficulty need be apprehended on this account. The immigrant has nothing to do but to comply with the conditions under which he takes, and his title will be secure to a home for his family which even the rapacity of pitiless creditors can not wrest from him, and which in return for moderate industry will enable him always to have enough and to spare of the good things of this world.

The following additional extracts are from a government Report:—

MINERALS.

By far the most important mineral resource yet discovered in Oregon is the vast deposit of iron known to exist between the Willamette River above Portland and the Columbia, at St. Helen. Of the entire extent of this valuable deposit there is as yet but little knowledge, but it has been traced a distance of at least 25 miles, and is, beyond doubt, inexhaustible.

The mineral resources of Oregon, though not so thoroughly prospected as those of adjacent States and Territories, are both extensive and valuable, and will no doubt at some future time form a prominent source of wealth. Placer mining has been carried on extensively and profitably in the southern counties since 1852, and the mines of John Day and Powder River have yielded several millions of dollars since their discovery in 1860. The annual product of these mines, until the last two years, has been from $1,500,000 to $2,000,000. In common with the surface deposits of elsewhere, there is a gradual diminution as the placers become exhausted. New discoveries, however, are being continually made.

COUNTIES.

Oregon is divided into 22 counties; the general characteristics, boundary lines, population, &c., &c., of each county, are thus given in McCormick's Directory:—

Baker County is situated east of the Cascade Mountains, embracing within its boundaries large tracts of excellent agricultural land, together with numerous valuable mining claims which are annually being developed. County seat, Auburn.

Benton County contains an area of about 1,556 square miles,

and is bounded on the north by Polk County, on the south by Lane, on the east by the Willamette River, and on the west by the Pacific Ocean. Number of legal voters, 950. County seat, Corvallis.

COLUMBIA COUNTY is bounded on the north and east by the Columbia River, on the south by Washington and Multnomah counties, and on the west by Clatsop County. According to the late census, it contains a population of 449, viz.: males, 297; females, 152. Number of voters, 173. Acres of land under cultivation, 745. The total value of assessable property in the county is $159,970. County seat, St. Helens.

CLACKAMAS COUNTY is bounded on the north by Multnomah, on the east by the Cascade Mountains, on the south by Marion, and on the west by Washington and Multnomah. Population, 4,144. County seat, Oregon City.

The establishment of a woolen-factory and a paper-mill at Oregon City has proved beneficial to its progress. Number of legal voters in the county, 1,242. Number of males, 2,448; females, 1,696. Acres of land under cultivation, 6,092. Value of assessable property, $1,605,594.

CLATSOP COUNTY contains a population of 689, viz.: males, 388; females, 301. Voters, 179. Acres of land under cultivation, 760. Value of assessable property, $280,000. County seat, Astoria.

CURRY COUNTY is situated in the extreme southwestern portion of the State, and contains a population of 389, viz.: males, 224; females, 165. Number of voters, 105. Number of acres of land under cultivation, 400. Value of assessable property, $100,600. Large quantities of good land, suitable for cultivation, remain unoccupied in this county. A new mining district has recently been opened near the mouth of Rogue River, where hundreds of men can find employment during eight months of the year. County seat, Ellensburg.

COOS COUNTY is situate in the southern portion of the State, on the coast, between Douglas and Curry counties. The population, according to the late census, is 1,024, viz.: males, 637; females, 387. Number of voters, 313. Acres of land under cultivation, 950. Value of assessable property, in the county, $200,000. County seat, Empire City.

DOUGLAS COUNTY contains a population of about 4,000, viz.: males, 2,250; females, 1,750. Number of voters, 1,139. Number of acres of land under cultivation, 21,404. Value of assessable property, $1,331,208. County seat, Roseburg.

GRANT COUNTY contains a population of 2,250, viz.: males, 2,000; females, 250. Number of voters, 1,300. Acres of land under cultivation, 5,000. Value of assessable property, $295,000 County seat, Canyon City.

JACKSON COUNTY is situate in the southern portion of the State, and contains within its boundaries rich gold mines, which

give employment to a large number of its citizens. The population of the county is 2,955, viz.: males, 1,755; females, 1,200. Number of voters, 1,253. Acres of land under cultivation, 13,901. Value of assessable property, $1,298,465. County seat, Jacksonville.

JOSEPHINE COUNTY is situate in the southern portion of Oregon, between Jackson and Curry counties, and contains a population of about 2,000. The assessable property in the county is estimated at $300,000. County seat, Kerbyville.

LANE COUNTY is situate in the central portion of the State, extending from the Pacific Ocean to the Cascade Range. The population of this county is 5,527, viz.: males, 3,077; females, 2,450. Number of legal voters, 1,318. Acres of land under cultivation, 30,683. Value of assessable property, $3,000,000. County seat, Eugene City.

LINN COUNTY is situate north of Lane, and contains a population of 7,709, being an increase of 937 since 1866. In 1850 the population of this county was only 994. Linn County contains an area of 877 square miles, or 561,200 acres. Number of males in the county, 4,235; females, 3,474. Voters, 2,250. Acres of land under cultivation, 49,405. Value of assessable property, $2,500,000. During 1865 a splendid brick court-house was erected at Albany, the county seat, at a cost of $31,000. The post-offices in this county are Albany, Peoria, Lebanon, Scio, Brownsville, Pine, and Harrisburg.

MARION COUNTY contains a population of about 9,000. County seat, Salem.

MULTNOMAH COUNTY is situate on the banks of the Willamette River, in the northern portion of the State, and is the wealthiest county in Oregon. It contains a population of 7,000, viz.: males, 4,020; females, 2,980. Number of voters, 1,723. Males under 21, 1,540. Acres of land under cultivation, 4,051. The total value of assessable property is $4,517,291. Since 1865 the population has increased 1,086. Portland, the county seat, is the principal city in the State. During the past year a new court-house has been erected at a cost of $100,000. Numerous brick buildings and dwelling-houses have also been constructed, and the city wears an aspect of general prosperity.

POLK COUNTY contains a population of 4,993, viz.: males, 2,788; females, 2,205. Number of voters, 1,125. Acres of land under cultivation, 90,127. Value of assessable property in the county, $1,033,179. County seat, Dallas.

TILLAMOOK COUNTY contains a population of about 300.

UNION COUNTY is situate east of the Cascade Range of mountains, and contains a population of about 2,000. Number of voters, 705. County seat, Le Grande.

UMATILLA COUNTY contains a population of 1,805, viz.: males,

1,049; females, 756. Number of voters, 797. Acres of land under cultivation, 5,770. Value of assessable property, $887,148.

WASCO COUNTY contains a population of 1,898, viz.: males, 1,092; females, 806. Number of voters, 604. Value of assessable property, $1,771,420. County seat, Dalles.

WASHINGTON COUNTY contains a population of 3,491, viz.: males, 1,903; females, 1,578. Number of voters, 824, being an increase of 120 since 1865. Acres of land under cultivation, 14,224. County seat, Hillsborough.

YAMHILL COUNTY contains a population of 4,018, viz.: males, 2,200; females, 1,818. Number of voters, 1,082. Acres of land under cultivation, 26,343. Value of assessable property, $1,000,000. County seat, Lafayette.

The subjoined is from the June Report (1868) of the Department of Agriculture:—

Lane County returns $2 per acre as the average value of unimproved lands in that county; a portion prairie, but mostly adjacent to hills or mountains; quality various—some quite good, but the declivities and barren hills detract from the immediate value of many tracts. In Columbia, $3.50 is the average per acre; mostly timber and brush land; such timber as yellow and white fir, hemlock, spruce, cedar, soft maple, ash, and alder. In the eastern part of the county it is black mold underlaid with clay; advancing west it changes to a light sandy loam; will produce good grain, grass, and vegetables. The average in Multnomah is $1.50 per acre, including Government lands; chiefly dry, timbered lands of fine quality, cedar, ash, oak, maple, and hemlock; capable of raising all kinds of grain and fruits suited to the latitude. Much of the surface of Douglas County is mountainous, and most of that which will serve for pasture is in private hands; but as there are still Government lands vacant, unimproved lands can not rate much above the minimum for public lands. Probably two-thirds of the lands of the State are for sale at Government prices; settlements now being principally confined to a strip bordering upon the Pacific, and embracing about one-third of the area of the State.

Columbia and Multnomah report iron ore in great abundance, and the former also coal and salt, with but little development beyond sufficient to demonstrate the presence of the minerals in large quantities, of superior quality, and easily worked. Both gold and silver are found in Douglas County, but not in large quantities, and few of the mines are worked at present. The mountains are heavily timbered with fir, cedar, and pine; the hills with oak and other deciduous trees.

Vegetables, fruit, and hay are the principal crops in Columbia,

and are cultivated with success in large quantities and with profit. Vegetables and fruit are also largely and profitably grown, together with general crops, in Multnomah; whilst in Lane, wheat is the staple, but oats and potatoes are successfully grown. Wheat yields from twenty to thirty bushels to the acre, and often weighs sixty-two to sixty-four pounds per bushel. Oats are superior; twenty-five to forty bushels per acre, weighing thirty-six to forty pounds to the bushel. Peas grow well, but are troubled with the bug or fly. Corn yields a fair crop, not very large but of good quality. Barley does very well. Our Douglas reporter says:—

"Wool is the crop and sheep the specialty in this valley. Fine wool sheep have been mostly sought; but owing, as farmers suppose, to the long-continued rains of winter, sheep of the merino grades are not so healthy as the straight-wooled varieties, which now seem to be favorites."

White winter wheat and common red-chaff spring wheat are grown in Columbia; but the white is preferred, as making the best flour. It is almost impossible to sow spring wheat, on account of the rain, so as to ripen in season to harvest before the fall rains set in. White wheat is also preferred in Multnomah for the same reasons. The Rio Grande, Club, and Mediterranean are grown in Lane, but the winter varieties are mostly raised. The winter wheat is sown in August and September, and the spring seed in March and April, as most practicable. Harvest commences the middle of July with the fall-sown crop, and extends into September for the spring grain. The seed is chiefly sowed broadcast; much being sowed after the plow and harrowed in.

Apples, peaches, pears, plums, cherries, quinces, berries in variety, grow abundantly, and our correspondents claim superiority for their State in the culture of fruits adapted to that latitude. Our Lane reporter writes as follows:—

"For most kinds of fruit this country is very good indeed. Apples and pears do the best; peaches tolerably; cherries, though uncertain, are a good crop. The small fruits do exceedingly well —gooseberries, currants, Lawton blackberries, and black and red Antwerp raspberries yield profusely. Strawberries are a very singular crop; when they fruit, they yield remarkably and of fine quality, but some seasons they blossom and do not bear, and yet not killed by the frost. Apples yield from one hundred to three hundred bushels per acre, the trees being yet small, though the crop is sure every year."

In Douglas, all kinds of fruit suited to the temperate zone succeed well; apples, pears, and plums better than in the Mississippi Valley; peaches and cherries not so well; the yield is abundant, and the fruit fine, but as yet there is no market, and the surplus is fed to the hogs.

CORRESPONDENCE.

JACKSONVILLE, OREGON, *August* 3, 1868.

MR. F. B. GODDARD:—

DEAR SIR: * * * I have resided in this valley since 1853, so that the following statements may be relied upon as correct.

The general character of this part of southern Oregon is mountainous; Rogue River valley is nearly surrounded by mountains; the outlets southwardly is over the Siskiyou Mountain into northern California, and northwardly, partly along Rogue River, through the famous fourteen mile cañon, on to the Willamette valley.

The lands in Rogue River valley are mostly taken up, and are in a high state of cultivation with good improvements; the soil is exceedingly fertile. Outside of the valley proper there is still a large amount of unclaimed land subject to entry, specially adapted to grazing. The prices of improved lands vary according to the quality of the soil, improvements, and location, and range from five to twenty dollars per acre.

Farm hands command from thirty to forty dollars per month and board. During the present harvest, there has been a scarcity of hands. Day laborers receive two dollars and fifty cents per day, and mechanics from three to four dollars per day, coin.

Our climate is mild; winters never severe; snow seldom falls in the valley ten inches deep, and remains on the ground but a short time. The summers are pleasant, saving a few hot days in midsummer, when the thermometer ranges as high as ninety degrees, Fahr. The nights, however, are always cool. Rain seldom falls in the months of July, August, and September; the "rainy season" usually commences in November.

The health of this region is proverbial, and is unsurpassed by any portion of the Pacific coast.

The immediate vicinity of this town, the county seat of Jackson County, is a mining region, and in former years an immense amount of gold has been obtained by placer mining; the mines are still remunerative. Coal is found in the valley, but has not been sufficiently developed to determine its extent or quality.

Quartz mining has been conducted to a limited extent; good paying lodes are known to exist, and only need capital to invest in this kind of enterprise, to make it profitable. Of timber we have abundance of pitch and sugar pine, fir, white and black-oak, ash, maple, alder, laurel, &c. The pine and fir make excellent lumber, worth from twenty to twenty-five dollars per M.

Wheat and oats are the principal crops of grain raised; Indian corn or maize is cultivated to a limited extent, the cool nights are

not favorable to its cultivation. No part of our country can produce better fruit than we have here, as apples, peaches, pears, cherries, plums, grapes, berries, and melons; garden vegetables of all kinds are excellent.

The price of wheat previous to the present harvest was one dollar per bushel, and oats seventy-five cents. The incoming crop is abundant, and will not command exceeding one-half the above prices.

We are so distant from the ocean, without the facilities of river navigation or railroad, that we have no reliable market for our surplus produce; the surrounding mineral regions furnish our principal markets.

Our nearest point to the ocean, from whence we receive our merchandise, is distant one hundred and twenty miles by land carriage, over high mountains; the cost of transportation being from sixty to seventy dollars per ton.

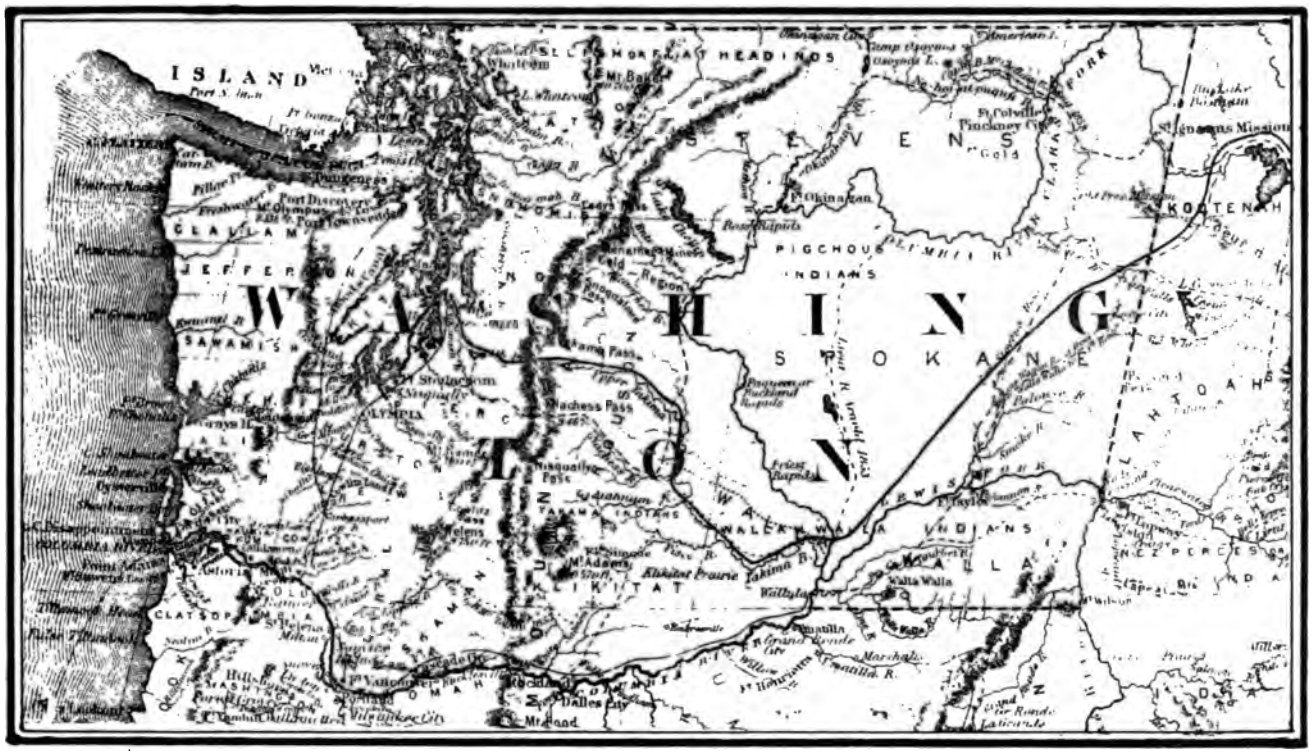
Our valley is well supplied with schools, and Sabbath services are held in Jacksonville and in different sections of the valley, by ministers of the Methodist (Northern and Southern) and Presbyterian churches; and by Roman Catholic in Jacksonville.

The inhabitants of this region are from every section of the Union, and also from different countries of the Old World.

WILLIAM HOFFMAN,
Notary Public.

The postmaster at the DALLES writes:—

There is plenty of vacant land hereabouts. Improved lands command, say $10 per acre. Laborers get $40 per month, coin. The climate is much milder than same latitude east. There is some gold, plenty of timber, &c. Price of wheat and barley, $1 per bushel, oats 75 cents. Ample market at home. School and religious advantages of Dalles City are good. County thinly settled. Nationality of the people is mostly American and German.



ISLAND
SELKIRK HEADINGS
Mt Baker
Whatcom
STEVENS
Ft Colville
Pinckney City
Gold
Ft Okinagan
Rose Rapids
KOOTENAH
PIGCHOUS INDIANS
CLALLAM
JEFFERSON
SAWAMISH
WASHINGTON
SPOKANE
Tacoma
OLYMPIA
Nachess Pass
Snoqualmo Pass
Priest Rapids
TAKAMA INDIANS
WALLA WALLA INDIANS
Walla Walla
Mt Adams
KLIKITAT
Klikitat Prairie
Yakima R
CLATSOP
Astoria
Salem
Milton
Ft Vancouver
Vancouver City
Rockland
Dalles City
Mt Hood
Umatilla
Marshals
Grand Ronde
Ft Hoskins
Umatilla R
NEZ PERCES
Wilson

WASHINGTON TERRITORY.

UNTIL the late purchase of Alaska, Washington Territory was the extreme northwestern possession of the United States. It has a frontage on the Pacific, and is flanked on the south by Oregon, and on the west by Idaho. Its area in square miles is about 70,000, embracing the "Cascade Mountains," and the mighty Columbia, which drains a large portion of the Territory and forms its southern boundary.

The "Cascade Mountains" are a continuation of the same range known as the Sierra Nevada, and derive their name from the many beautiful waterfalls and cascades which flash and sparkle in the sunlight from numerous crags and crevices, flecking the gorges and mountain sides with silvery foam, and breaking the solitudes with their murmuring music. The crests of these mountains are not so high as those of the ranges farther south, with the exception of a few solitary peaks, the altitude of the chain rarely exceeding 5,000 feet above the snow line.

The whole Territory is highly favored with navigable waters. The Columbia, rising in the Rocky Mountains, is navigable throughout nearly its whole length, and furnishes a main artery of communication with the interior. Its head waters almost interlace with those of the Missouri, and the navigable waters of these two vast rivers are but 450 miles apart. Other rivers intersecting the mountains, afford passes for the easy construction of roads.

The climate of the Territory is similar to that of Oregon, and also much resembles that of England in temperature and amount of rain-fall. It may be described as exceedingly beautiful, and agreeable. For convenience of description, three divisions are generally made of Washington Territory, viz.: Western, Eastern, and Middle Washington.

"WESTERN WASHINGTON includes the Puget Sound basin, the valley of the Chehalis, the basin of Shoalwater Bay, and the country drained by the Lower Columbia and its northern tributaries, the principal of which is the Cowlitz. Ridges, spurs of the Cascade and Coast ranges of mountains, clearly demarcate these several subdivisions, and a diversity of soil, products, and geological conformation ascribe distinctive features to each.

"PUGET SOUND.—This is the general cognomen of that vast ramification of waters to which have been given, by illustrious navigators, the names of Straits of Juan de Fuca, Admiralty Inlet, Hood's Canal, and Puget Sound, together with the almost innumerable bays, harbors, and inlets, each enjoying a separate name, and many of which would afford commodious and adequate harbor for the combined navies of the world."

Commissioner WILSON says:—

In respect to its interior water system, and its immense forests of fine timber, this Territory stands unrivaled. It possesses more excellent harbors than any other State or country of equal extent on the face of the globe.

Admiral WILKES, in 1841, thus spoke of these waters:—

Nothing can exceed the beauty of these waters and their safety. Not a shoal exists within the Straits of Juan de Fuca, Admiralty Inlet, or Hood's Canal, that can in any way interrupt their navigation by a 74 gun-ship. I venture nothing in saying there is no country in the world that possesses waters equal to these. They cover an area of about 2,000 square miles. The shores of all these inlets and bays are remarkably bold; so much so that in many places a ship's side would strike the shore before the keel would touch the ground. The country by which these waters are surrounded is remarkably salubrious, and offers every advantage for the accommodation of a vast commercial and military marine, with convenience for docks, and a great many sites for towns and cities; at all times well supplied with water, and capable of being provided with every thing by the surrounding country, which is well adapted for agriculture.

The Straits of Juan de Fuca are 95 miles in length, and have an average width of 11 miles. At the entrance (eight miles in width) no danger exists, and it may be safely navigated throughout. No part of the world affords finer inland sounds, or a greater number of harbors, than are found within the Straits of Juan de Fuca, capable of receiving the largest class of vessels, and without a danger in them which is not visible. From the rise and fall of the tides (18 feet) every facility is offered for the erection of works

for a great maritime nation. The country also affords as many sites for water power as any other.

According to JAS. S. LAWSON, of the United States Coast Survey, the shore line of these waters is 1,594 miles in length. Around this "Mediterranean of the North Pacific" are numerous flourishing towns, among which are Port Discovery, Port Townsend, Port Madison, Port Gamble, Bellingham Bay, &c., &c.

RIVERS EMPTYING INTO PUGET SOUND.—First, upon the north, is the Lummi, a large and rapid river, with much excellent grazing and agricultural land upon its borders, upon which, however, few settlements have as yet been made.

Next, south, is the Skagit River, naturally navigable for some 50 miles, and noted for its heavy timber and rich agricultural lands. The Stit-a-quamish, with valuable timber, and evidences of coal upon its banks. The Snoqualmie and Snohomish, navigable, well timbered, and with much first-rate agricultural land. The Dwamish, scene of the terrible Indian massacre in 1855, in which eleven men, women, and children were killed and shockingly mutilated.

The Puyallup River is a fine stream. There is much good agricultural land in the valleys of the Puyallup and the Stuck. The soil is good and the bottoms are well settled. "These lands yield heavy crops of wheat, barley, oats, and some corn has succeeded well. Vegetables attain an enormous size. The high lands are generally rolling and well adapted to cultivation."

Mr. BROWNE says:—

The Snohomish valley varies from one to three miles in width, with a soil equal to the best bottom land in the Western States. The growth in the bottoms consists of alder and vine maple. Union City has been started near the mouth, and several claims have been taken. A great quantity of very desirable land is still vacant. Information derived from surveying parties justifies the statement that the land upon the forks is similar to that upon the river. The average yield to the acre in this valley is as follows: Potatoes, 600 bushels; wheat, 40 bushels; peas, 60 bushels; timothy hay, 5 tons; oats, 70 bushels.

And of the Valley of the Chehalis:—

This valley is the richest and most extensive body of agricultural land west of the Cascade Mountains. Indeed, Chehalis and Lewis counties, and the portion of Thurston drained by these streams, may be pronounced the garden spot of Washington Territory. The valley varies in breadth from 15 to 50 miles. From the mouth of the Satsop through to Hood's Canal, closed in by the Black Hills and the Coast Range, there is a beautiful open valley some 14 or 15 miles wide. In fact, the whole country, from the Chehalis to the head of the sound and the head of Hood's Canal, is well adapted to farming purposes. Prairie land to the extent of 50,000 acres, suited for grazing, lies in the vicinity of Gray's harbor, and the rich bottoms skirting all these streams, covered with an undergrowth of alder, maple, &c., so easily cleared, would furnish first-class farms for a vast number of settlers.

Commissioner WILSON says of this valley:—

Most of the land has been surveyed. The valley contains about 400,000 acres, part prairie, and part timber; about 250,000 acres of which are yet unoccupied. The population of the valley consists of about two hundred settlers and their families.

Mr. BROWNE further says:—

The Chehalis is navigable at all tides for vessels of light draught or small river steamers, as far as the mouth of the Wynoche, and at high tide to the mouth of the Satsop, where there is a tidal rise and fall of 18 inches. At the lowest water, for two or three months in the year, shoal places might obstruct navigation, but for eight months no difficulty need prevent ascending as far as Claquato, where the territorial road between Olympia and Monticello crosses the Chehalis River. The Messrs. Goff, of Claquato, have just put on this river a good light-draught stern-wheel boat, and they express the assurance that they can make trips most of the year to Boisfort Prairie, some miles above Claquato. All the streams abound with salmon, trout, and many varieties of edible fish. Elk and other game, large and small, are plentiful. Coal has been discovered on the north side of the river, and also upon several of the tributary streams.

SHOALWATER BAY is full of shoals and flats, and at low tide about half its area is bare; good but narrow channels run throughout its extent, worn by the several streams which empty into it. These flats are covered with oysters, which constitute the chief article of export. Codfish, halibut, and sturgeon are abundant.

Several varieties of salmon are also found, and in spring large shoals of small herring enter the bay. The annual shipments of oysters to San Francisco is about 35,000 baskets; about 5,000 baskets more are sent to Portland, Oregon, and other points on the Columbia River.

CLIMATE OF WESTERN WASHINGTON.—The climate of Western Washington is essentially different from that of the portion east of the Cascade Mountains. The fact that there is comparatively no winter in so high a latitude may be a matter of surprise. Properly speaking, however, there are but two seasons, the dry and the rainy. The grades of temperature and the accompaniments which in other countries of the same latitude ascribe the features and title to the four seasons, spring, summer, autumn, and winter, are here in great measure obliterated, or at least so dimly marked that the seasons imperceptibly run into each other, and lose their distinctive line of division. It is not unusual for the three winter months to be mild, without snow or ice, the grass growing meanwhile. In February, the weather may occur mild and genial as May, to be succeeded in March or April with our coldest weather. In July and August, days in some portions of which the maximum temperature will reach 90° or 100°, are sometimes followed by cold nights, occasionally accompanied by heavy frost. The rainy season proper begins late in October or early in November, and may be said to continue till the ensuing April. It frequently happens after the first rains that weeks of weather similar to Indian summer occur, and it is seldom that one or other of the months of January, February, or March does not prove continuously mild and clear. The summers of this Territory are unsurpassed in the world. While many days are exceedingly warm, the nights are always cool and refreshing, as if specially intended for wholesome sleeping. In the winter months, six in number, rains prevail. No disappointment should be felt if falling weather occurred some part of each 24 hours, and yet many bright sunshiny days relieve the long-continued rainy season of Washington Territory. * * * *

EASTERN WASHINGTON.—This portion of the Territory is bounded on the west by the Columbia River. It may be considered as the aggregation of the Walla Walla valley, the basin of the Lower Snake River, the Great Plain east of the Columbia, circumscribed by the big bend of that river, and divided by the Grand Cowlee, the Spokane River valley and plains, and the valley of the Pen d'Oreille, under the general name of Colville.

The valleys of all these rivers and their numerous branches afford abundance of excellent farming lands, yielding heavy crops. The table-lands and surrounding hills are possessed of soil of like character. In consequence of the absence of water,

or difficulty of irrigation, which was deemed a *sine qua non* to their successful cultivation, until very recently no attempts were made to convert these lands into farms; but as settlement increases, they are being occupied and very successfully cultivated. For grazing, these table-lands and side hills can not be excelled. They are covered with a luxuriant growth of native bunch-grass of most nutritious quality. During the rains of spring it seems to attain its growth, and through the dry season which follows it stands to be cured into the best of hay, preserving its strength and esculent properties all winter.

Colville valley has much rich land which is unoccupied and open to the immigrant. JUDGE WYCHE, of the Supreme Court of Washington Territory, thus speaks of it:—

On the rich lands now unoccupied in the valley and on Mud Lake, and along on different points on the Columbia River, there are now the finest opportunities for settlement and happy and prosperous homes of any part of this upper coast. From 100 to 300 families may find as rich land as the sun shines on, with no timber to be cleared, and with splendid timber just at hand, and the finest streams, and needing only the touch of the husbandman's hand to yield abundant harvests.

Respecting Colville, Mr. BROWNE says:—

This vicinity has attracted much attention as a gold mining region since 1854; indeed the name of "Colville" has attached to the whole mining region of the Upper Columbia and its tributaries, south of the 49th parallel. Gold is found on all the streams and bars from the Spokane River to the northern boundary, and up the Pen d'Oreille to the Catholic Mission. The richer fields of British Columbia have attracted thither white miners, but a large number of Chinamen have found successful employment on these various bars for the past several years.

* * * * * * * * * * *

There is no hazard in the statement that, for health and salubrity, there is no climate in the world which surpasses that of Washington Territory in the two portions east of the Cascade Mountains.

MIDDLE WASHINGTON.—This division of the Territory lies between the main Columbia and the Cascade Mountains; branches of the Columbia ramify through it in every direction, with many beautiful valleys and much arable land well grassed and wooded.

Mr. BROWNE continues:—

South of the Yakima is a low divide separating its waters from the waters flowing into the main Columbia, in that portion of the river where, after leaving Fort Walla Walla, it proceeds westward. This divide has a general parallel course to the Columbia, is nearly east and west some 30 miles from the main river, and between it and the Columbia is a large body of arable land, nearly every acre of it adapted to cereals. This country has not come under the observation of a scientific party with instruments in hand, but has been much traveled over by intelligent officers of the Indian service and by the practical agriculturists of the country. Little streams flowing from the southern side of this divide, which is well wooded all through, pass down to the main Columbia, watering the country and furnishing the means of supplying the farm and animals with water. * * * The forest growth of the upper waters of the Clearwater, and of the main Columbia from above the mouth of the Wenachee, furnishes inexhaustible supplies, which, after being rafted down the streams—that is, the Snake and Columbia rivers—will furnish settlements in the vicinity of those rivers with firewood and lumber at moderate rates. So great are the facilities for rafting that it almost amounts to a continuous forest along the streams.

When this interior becomes settled there will be a chain of agricultural settlements all the way from Walla Walla to the Dalles, south of the Columbia, along the streams just mentioned and north of the Columbia, on the beautiful table-land which borders it from the Walla Walla westward. The Dalles is a narrow place in the Columbia River where the channel has been worn out of the rocks, below which, about 10 miles, is the mouth of the Klikitat River, whose general valley furnishes the route of communication with the main Yakima and the several intermediate streams, the trails pursuing a generally northerly direction. In this Klikitat valley is much good farming land. It is also worthy of observation that gold was found to exist, in the explorations of 1853, throughout the whole region between the Cascades and the main Columbia, to the north of the boundary, and paying localities have since been found at several points, particularly on the southern tributary of the Wenachee. The gold quartz also is found in the Nachess River. The gold-bearing crossing the Columbia and stretching along Clark's Fork and the Kutanie River unquestionably extends to the Rocky Mountains.

* * * * * * * * * * *

All the crops of the Middle States, including corn, can be cultivated successfully in the Yakima valley. This statement is based upon reliable information from settlers who have resided there, and farmed for several years past.

MINERAL RESOURCES.

COAL.—The appearance of veins and outcroppings of coal in almost every section of the Territory west of the Cascade Mountains indicate its very general distribution and inexhaustive supply. It is found on the Columbia, as also upon streams emptying directly into the Pacific; it appears at Clallam Bay, just within the Straits of Fuca; following round our inland sea, we find it in exhaustless fields back of Seattle, then upon the Sto-lu-aua-mah, and at Bellingham Bay, in the extreme north. Its presence at intermediate sections, within an area bounded by the above designated points upon the Cowlitz and Skookum Chuck, the Chehalis, and on the Dwamish, Black, and Green rivers, attest its thorough and universal diffusion—the continuity of the strata through this whole region.

FISHERIES.

PUGET SOUND AND THE NORTHERN FISHERIES.—Prominent among the resources of the Puget Sound country is the building of fishing schooners and using them in the northern cod fisheries.

The cod and halibut banks in the North Pacific, both on the Asiatic and American coasts, and also around the intervening islands, are known to be numerous, and fish abundant.

The market for cured fish will increase with the supply. Five hundred schooners, averaging 100 tons burden each, and employing 5,000 men, engaged in the fishing business, with more than ordinary fisherman's luck, would not over supply the Pacific market. San Francisco would, of course, be the wholesale center of trade and supply for California and other mining countries, the Pacific islands and fleet, Hong-Kong and other Asiatic ports, and all ports south to Valparaiso. Decayed codfish, *via* the Horn, will no longer be a marketable article in San Francisco. The Atlantic cod fleet, American, English, and French, number some 3,000 vessels, manned with about 30,000 men; yet the price of dry and pickled fish has been gradually rising for the last 15 years, and this, too, under the bounty act of Congress and the reciprocity treaty with Great Britain.

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With no rivalry from the East or elsewhere; with abundance of fish, unfrequent storms during the fishing season, the best climate to cure fish, safe harbors, salt by the cargo at a comparatively low price, and all the requisite provisions for an outfit, it is scarcely possible to overate the advantages of this region as the great fishery of the North Pacific. The Sound waters are full of clams and small fish for bait, and good ship-timber can be had near the shores for the mere cost of cutting.

AGRICULTURAL RESOURCES.

We subjoin a portion of the June Report (1868) of the Department of Agriculture, respecting the agricultural resources, &c., &c., of Washington Territory:—

The average value of wild or unimproved lands in Clallam County is $1.25 per acre, covered with a dense growth of heavy timber. When cleared, the high land is capable of producing good crops of wheat, oats, barley, &c., and the low lands will yield, in addition to the cereals, abundant crops of hardy vegetables. The same average price rules in Pacific; land said to be of little value except for timber. Lands entered, but unimproved, in Wahkiacum have advanced 50 per cent. since 1860. There is still much Government land in this county; but it is generally hilly and covered with fir timber, which will not pay for clearing. The settled land is chiefly valley—heavy, rich alluvial soil, suited to the cereals and vegetables. Clarke County averages $1.25 per acre and Walla Walla $2, the former mostly uneven and heavily timbered with fir; soil about second quality; no vacant prairie land. In the latter county the land is prairie, good for wheat and splendid for grazing. There is a vast quantity of Government land remaining for sale or subject to entry under the homestead laws or soldiers' warrants in this Territory.

In the counties named no mineral resources of consequence, except coal, have been developed as yet. Coal is said to exist in large quantities in some localities. Timber is abundant.

In speaking of resources of the soil, our Wahkiacum reporter says:—

"The valley land is almost inexhaustible. I have examined it down 10 feet, and found it about as rich as it is at the surface. In the valley the principal timber is soft maple, alder, with scattering spruce, very thick underbrush. It costs from $25 to $50 per acre to clear it."

Beef and wheat are the staple productions of Walla Walla County, its extended prairies furnishing a rich grazing region. Our Clarke reporter writes as follows:—

"Wheat, hay, and apples are our chief crops. Wheat is cultivated by nearly all the farmers; average yield about 25 bushels per acre; yield of the county this year (1867), 75,000, of which 55,000 was winter wheat. No rust, no weevil, very little smut, sound and healthy; average price, $1 in coin; cost, 80 cents per bushel; net profit, 20 cents per bushel, $5 per acre in coin. Hay, mostly herds-grass, averages two tons to the acre; about 3,500

acres cultivated; 7,000 tons of hay, worth $8 per ton. In clover, 300 acres, two crops a year; two tons per acre; worth $12 per ton. Apples by far the most profitable; winter varieties worth 60 to 70 cents per bushel."

Potatoes are the staple crop in Wahkiacum, the yield being about 300 bushels, of 60 pounds, to the acre under the best cultivation. Our correspondent made last year a net profit of $75 per acre.

From Pacific our correspondent writes as follows:—

"The business which employs the most men here, and the greatest amount of capital, is the cultivation of oysters. From 60 to 70 men are employed, with a corresponding number of sloops, boats, scows, &c., in transporting them from the natural to private beds. By an act of the legislature every citizen is granted 10 acres where there are no natural beds of oysters. This ground is covered with young oysters at a cost of about $180 per acre, 3,000 baskets being about what one acre will grow. These are fit for market in from three to five years, and bring $1 per basket. The cost of gathering is about 25 cents per basket, aside from the first cost of planting. The amount of oysters annually shipped from this shoal water is about 40,000 baskets, the greater part going to San Francisco. About 5,000 baskets are sent to Oregon. The past winter has been very hard on the oystermen, many thousand bushels of oysters having been killed by the severe cold weather."

Red clover and timothy are successfully cultivated. Our reporters in Pacific and Walla Walla state that stock will subsist upon pastures and do well all the year; in Clallam and Wahkiacum, eight months are given as a limit during which cattle can subsist exclusively upon pastures; and in Clarke, seven months, at a cost of $3 per head. The estimated cost in Clallam is $12 per head for the season.

All our correspondents report favorably upon the capabilities of the Territory for fruit culture. Our Clarke reporter answers the questions as follows:—

"Apples, pears, plums, cherries, gooseberries, raspberries, strawberries, currants, and blackberries, are well adapted to our soil and climate. Peaches and grapes not so well suited. Of apples, the Roxbury Russet, Rhode Island Greening, Pearmain, Spitzenberg, and Jersey Sweeting, bear at the age of four years from grafting, if set out at one year old."

Our Wahkiacum reporter says apples grow so abundantly that they will not pay to market; hence he turns them to profit by feeding them to his hogs, for which purpose he thinks them better than potatoes.

Capt. CHAS. G. PETTYS, a worthy citizen of Seattle, now

upon a visit to New York, makes us personally the following interesting statement:—

We have little snow in winter, but much rain. The climate is very healthy. I have lived there with my family for many years, and we all like it so much that we would not leave under any consideration. Society is first-rate; people all cordial, and everybody jolly. We have the best of schools, and churches of all denominations. Our school-house at Seattle cost $40,000 in gold; it has a play-ground of forty acres.

The Indians are all peaceable and useful. Some of the younger squaws are quite good looking, and make excellent nurses and domestics.

You can buy of the Indians a bushel of clams, or a salmon that will weigh twenty-five or thirty pounds, for a dime; or two hind quarters of venison for fifty cents. There is an abundance of game, millions of partridges, grouse, and pheasants; plenty of deer, bears, and panthers. Good improved lands near the towns will command $10 to $15 per acre, but millions of acres of good lands are open to settlement everywhere. Little except bottom land is cultivated, as the uplands are so heavily timbered that it is expensive to clear them.

Lumbering is a leading interest in the Territory, and very profitable with capital. This is a most inviting county for Eastern lumbermen. Common hands get $40 per month, with board; head sawyers $100, and always wanted. Board averages about $5, coin, per week.

The best flour sells at $7, coin, per barrel. Raising hogs and sheep pays well; but the best business on the coast, better than any gold mine, is, or would be, the curing of salmon for the New York market. The quantity that may be had is illimitable; the Indians will catch all that can be used; they can be packed for $4 per barrel (say salmon $2, salt $1, barrel $1), freighted to New York City at $8 per barrel, and sold for $35 to $40.

From Olympia, Mr. Elwood Evans writes us, under date of August 15th, 1868, that the residents at the lumbering settlements around Puget Sound are mostly from Maine. In the farming settlements the population is made up of immigrants, who have crossed the plains, from various sections of the United States, with a sprinkling of Germans and Irish.

From the Olympia *Standard* we copy the following in reference to the rate of wages in that region:–

A farming hand, by the year, will receive from twenty to forty

dollars per month, and board, while a laborer, through harvest, will get two and three dollars per day. Mill operatives and loggers, from forty to sixty dollars per month, and board; carpenters and mechanics, from three to five dollars per day; domestic help, twenty to thirty-five dollars per month. People and capital are needed to develop the resources of this Territory. Farmers, mechanics, lumbermen, fishermen, as well as capitalists, all will find a wide field, and plenty of chance for enterprise and industry. There is plenty of room for talent, energy, and capital. The chances have not all been taken, indeed the country is yet in its infancy.

JOHN S. HITTELL, Esq., of California, a reliable writer, thus sums up his views of the climate of Washington Territory:—

Washington Territory, as well as the other portions of the Pacific, has a mildness and equability of climate unknown in like latitudes on the Atlantic side of the continent. This place has a summer cooler than that of Quebec, and a winter as warm as that of Norfolk; and while its average temperature for the year is about the same as that of New York, which is six degrees farther south, it has neither the bitter frosts nor the burning heat of the latter place.

ALASKA.

DURING the year 1867, the United States Government acquired, by purchase from Russia, all that portion of the North American continent occupying its extreme northwestern limits, and known as Russian America, or Alaska.

The territory thus acquired has an estimated area of 570,000 square miles. It is separated from Asia by Behring Straits, only thirty-six miles wide at their narrowest point, and four hundred miles long, with bluff and indented shores. Situated so far to the north, with a long shore line upon the Frozen Ocean, the popular belief respecting Alaska had hitherto been that, in its long and rigorous winters, it had received from the Almighty hand the seal of perpetual desolation, and could never become of any value to the American people.

This belief, and the fact of its ownership by a foreign power, had prevented any general interest in Alaska, and it was only when the world was startled by the announcement of its purchase by the American Government that inquiry was stimulated respecting the resources of this vast and interesting region.

In Senator SUMNER'S speech upon the cession of Russian America to the United States, we find the most reliable and comprehensive summary of all that is known respecting Alaska. By permission, we avail ourselves of his scholarly researches, and present the following extracts from that speech:—

PHYSICAL FEATURES.

Including the Sitkan archipelago at the south, it takes a margin of the mainland, fronting on the ocean, thirty miles broad and three hundred miles long, to Mount St. Elias, the highest peak of the continent, when it turns with an elbow to the west, and then along Behring Straits northerly, when it rounds to the east along

the Frozen Ocean. Here are upward of four thousand statute miles of coast, indented by capacious bays and commodious harbors without number, embracing the peninsula of Alaska, one of the most remarkable in the world, fifty miles in breadth and three hundred miles in length; piled with mountains, many volcanic and some still smoking; penetrated by navigable rivers, one of which is among the largest in the world; studded with islands which stand like sentinels on the coast, and flanked by that narrow Aleutian range which, starting from Alaska, stretches far away to Japan, as if America were extending a friendly hand to Asia. According to accurate estimates the coast line, including bays and islands, is not less than eleven thousand two hundred and seventy miles. In the Aleutian range, besides innumerable islets and rocks, there are not less than fifty-five islands exceeding three miles in length; there are seven exceeding forty miles, with Ounimak, which is the largest, exceeding seventy-three miles. In our part of Behring Sea there are five considerable islands, the largest of which is St. Lawrence, being more than ninety-six miles long. Add to all these the group south of the peninsula of Alaska, including the Shumagins and the magnificent island of Kodiak, and then the Sitkan group, being archipelago added to archipelago, and the whole together constituting the geographical complement to the West Indies, so that the northwest of the continent answers archipelago for archipelago to the southeast.

CLIMATE.

Climate is a universal master. But nowhere, perhaps, does it appear more eccentric than in the southern portion of Russian America. Without a knowledge of climatic laws the weather here would seem like a freak of nature. But a brief explanation shows how all its peculiarities are the result of natural causes, which operate with a force as unerring as gravitation.

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Early navigators record the prevailing moisture. All are enveloped in fog. Behring names an island Foggy. Another gives the same designation to a cape at the southern extremity of Russian America. Cook records fog. La Pérouse speaks of continued rain and fog in the month of August. And now visitors, whether for science or business, make the same report. The forests testify also. According to Physical Geography it could not be otherwise. The warm air from the ocean encountering the snow-capped mountains would naturally produce this result.

The winter of Sitka is milder than that of many European capitals. It is much milder than that of St. Petersburg, Moscow, Stockholm, Copenhagen, Berne, or Berlin. It is milder even than that of Manheim, Stuttgard, Vienna, Sebastopol in the Crimea,

or Turin. It is not much colder than that of Padua. According to observations at Sitka in 1831 it froze for only two days in December and seven days in January. In February the longest frost lasted five days; in March it did not freeze during the day at all, and rarely in the night. During the next winter the thermometer did not fall below 21° Fahrenheit; in January, 1834, it reached 11°. On the other hand a temperature of 50° has been noted in January. The roadstead is open throughout the year, and only a few land-locked bays are frozen.

It will be seen by this description that the winters of Sitka are relatively warm, not differing much from those of Washington, and several degrees warmer than those of New York; but the summers are colder. The mean temperature of winter is 32° 30′, while that of summer is 53° 37′. The Washington winter is 38° 57′; the Washington summer is 73° 07′. These points exhibit the peculiarities of this coast—warm winters and cool summers.

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The prevailing dampness of Sitka makes a residence there far from agreeable, although it does not appear to be injurious to health. England is also damp, but Englishmen boast that theirs is the best climate of the world. At Sitka the annual fall of rain is eighty-nine inches. The mean annual fall in all England is forty inches, although in the mountainous districts of Cumberland and Westmoreland the fall amounts to ninety and even one hundred and forty inches. In Washington it is forty-one inches. The forests at Sitka are so wet that they will not burn, although frequent attempts have been made to set them on fire. The houses, which are of wood, suffer from the constant moisture. In 1828, there were twenty days when it rained or snowed continuously; one hundred and twenty when it rained or snowed part of the day, and only sixty-six days of clear weather. Some years only forty bright days have been counted. Hinds, the naturalist, records only thirty-seven "really clear and fine days."

The whole coast from Sitka to the peninsula of Alaska seems to have the same continuous climate, whether as regards temperature or moisture. The island of Kodiak and the recess of Cook's inlet are outside of this climatic curve, so as to be comparatively dry. Langsdorf reports the winters "frequently so mild in the lower parts of Kodiak that the snow does not lie upon the ground for any length of time, nor is any thing like severe cold felt." The Aleutian Islands, farther west, are somewhat colder than Sitka, although the difference is not great. The summer temperature is seldom above 66°; the winter temperature is more seldom as low as 2° below zero. The snow falls about the beginning of October, and is seen sometimes as late as the end of April; but it does not remain long on the surface. The mean temperature

of Ounalaska is about 40°. Chamisso found the temperature of spring water at the beginning of the year to be 38° 50′. There are some years when it rains on this island the whole winter. The fogs prevail from April till the middle of July, when they seem for the time to be driven farther north. The islands northward toward Behring Straits are proportionately colder, but you will not forget that the American coast is milder than the opposite coast of Asia.

On Norton Sound and the Kwichpak River winter may be said to commence at the end of September, although the weather is not severe till the end of October. The first snow falls about the 20th or 25th of September. All the small ponds and lakes were frozen early in October. The Kwichpak was frozen solid about the 20th or 25th of this month. On the 1st November the harbor at St. Michaels was still open, but on the morning of the 4th it was frozen solid enough for sledges to cross on the ice. In December there were two thaws, one of them accompanied by rain for a day. The snow was about two feet deep at the end of the month. January was uniformly cold, and it was said that at one place sixty-five miles northeast of St. Michaels the thermometer descended to 58° below zero. February was unusually mild all over the country. In the middle of the month there was an extensive thaw, with showers of rain. About half of the snow disappeared, leaving much of the ground bare. March was pleasant, without very cold weather. Its mean temperature was 20°; its mininum was 3° below zero.

Spring commences on the Kwichpak the 1st of May, or a few days later, when the birds return and vegetation begins to appear. The ice did not entirely disappear from the river till after the 20th May. The sea ice continued in the bay of St. Michaels as late as 1st of June. The summer temperature is much higher in the interior of the country than on the coast. Parties traveling on the Kwichpak in June complained sometimes from the heat.

The River Youkon, which, flowing into the Kwichpak, helps to swell that stream, is navigable for at least four, if not five, months in the year. The thermometer at Fort Youkon is sometimes at 65° below zero of Fahrenheit, and for three months of a recent winter it stood at 50° below zero without variation. In summer it rises above 80° in the shade; but a hard frost occurs at times in August. The southwest wind brings warmth; the northeast wind brings cold. Some years there is no rain for months, and then again showers alternate with sunshine. The snow packs hard at an average of two and a half feet deep. The ice is four or five feet thick; in a severe winter it is six feet thick. Life at Fort Youkon under these rigors of nature, although not inviting, is not intolerable.

VEGETABLE PRODUCTIONS.

Since the establishment of Europeans on this coast an attempt has been made to introduce the nutritious grains and vegetables known to the civilized world; but without very brilliant success. Against wheat and rye and against orchard fruits there are obstacles of climate, perhaps insuperable. All these require summer heat; but here the summer is comparatively cold. The northern limit of wheat is several degrees below the southern limit of these possessions, so that this friendly grain is out of the question. Rye flourishes further north, as do oats also. The supposed northern limit of these grains embraces Sitka and grazes the Aleutian Islands. But there are other climatic conditions which are wanting at least for rye. One of these is dry weather, which is required at the time of its bloom. Possibly the clearing of the forest may produce some modification of the weather. For the present barley grows better, and there is reason to believe that it may be cultivated successfully very far to the north. It has ripened at Kodiak. There are many garden vegetables which have become domesticated. Lütke reports that at Sitka potatoes flourish; so that all have enough. Langsdorf reports the same of Kodiak. There are also radishes, cabbages, cauliflowers, peas, and carrots—making a very respectable list. The same, perhaps, may be found at Ounalaska. On Norton Sound I hear of radishes, beets, and cabbages. Even as far north as Port Youkon, on the parallel of 67°, potatoes, peas, turnips, and even barley have been grown; but the turnips were unfit for the table, being rotten at the heart. A recent resident reports that there are no fruit-trees, and not even a raspberry bush, and that he lost all his potatoes during one season by a frost in the latter days of July; but do not forget that these potatoes were the wall-flowers of the Arctic Circle.

Thus it appears that the vegetable productions of the country are represented practically by trees. The forests which overshadow the coast from Sitka to Cook's Inlet are all that we can show under this head out of which a revenue can be derived, unless we add ginseng, which is so much prized by the Chinese, and perhaps also snakeroot. Other things may contribute to the scanty support of a household; but timber will in all probability be an article of commerce. It has been so already. Ships from the Sandwich Islands have come for it, and there is reason to believe that this trade may be extended indefinitely, so that Russian America may be on the Pacific like Maine on the Atlantic, and the lumbermen of Sitka may vie with their hardy brethren of the East.

MINERAL PRODUCTS.

IRON.—It is not entirely certain that *Iron* has been found in this region, although frequently reported. * * *

SILVER also has been reported at Sitka by the same Russian engineer who reported iron there; and, like the iron, in "sufficient quantity to pay for the working."

LEAD was reported by the Russian explorer, Lieutenant Zagoyskin, on the lower part of the Kwichpak; but it is not known to what extent it exists.

COPPER is found on the Copper River in masses sometimes as large as forty pounds. * * * Traces of copper are also found in other places on the coast; also in the mountains near the Youkon, where the Indians use it for arrow-heads.

COAL seems to exist all along the coast; according to Golowin, "everywhere in greater or less abundance." Traces of it are reported on the islands of the Sitkan archipelago, and this is extremely probable, for it has been worked successfully on Vancouver's Island below. It is also found on the Kenaian peninsula, Alaska, the island of Unga, belonging to the Shumagin group, Ounalaska, and far to the north at Beaufort. At the latter place it is "slaty, burning with a pure flame and rapid consumption," and it is supposed that there are extensive beds in the neighborhood better in quality. * * *

Gold has been found, but not in any sufficient quantities reasonably accessible. Nature for the present sets up obstacles. But failure in one place will be no discouragement in another, especially as there is reason to believe that the mountains here contain a continuation of those auriferous deposits which have become so famous farther south. The Sierra Nevada chain of California reaches here.

The same writer, who reports iron at Sitka, also reports, that during the last year he saw a piece of gold as large as a marble, which was shown by an Indian. But the Russian engineer, Doroschin, furnishes testimony more precise. He reports gold in at least three different localities, each of considerable extent. The first is the mountain range on the north of Cook's Inlet, and extending into Alaska, consisting principally of clay slate with permeating veins of diorite, the latter being known as a gold-bearing rock. He observed this in the summer of 1851. About the same time certain Indians from the Bay of Jakutat, not far from Mount St. Elias, brought him specimens of diorite found in their neighborhood, making, therefore, a second deposit. In the summer of 1855 the same engineer found gold on the southern side of Cook's Inlet, in the mountains of the Kenay peninsula. Satisfying himself, first, that the bank occupied by

the redoubt of St. Nicholas, at the mouth of the Kaknu River, is gold-bearing, he was induced to follow the development of diorite in the upper valley of the river, and, as he ascended, found a gold-bearing alluvion gradually increasing, with scales of gold becoming coarser and coarser, instead of being scarcely visible as at first.

FURS

Furs have at times vied with minerals in value, although the supply is more limited and less permanent. Trappers are "miners of the forest," seeking furs as others gold. * * *

Sir George Simpson, the governor-in-chief of the Hudson Bay Company, who was at Sitka in 1841, represents the returns of the company for that year as follows: 10,000 fur seals, 1,000 sea otters, 2,500 land otters, and 20,000 walrus teeth, without including foxes and martens. There is still one other report for the year 1852, as follows: 1,231 sea otters, 129 young sea otters, 2,948 common otters, 14,486 fur seals, 107 bears, 13,300 beavers, 2 wolves, 458 sables, 243 lynxes, 163 moleskins, 1,504 bags of castoreum, 684 black foxes, 1,590 cross foxes, 5,174 red foxes, 2,359 blue arctic foxes, 355 white arctic foxes, and also 31 foxes called white, perhaps Albinos.

Besides these reports for special years, I am enabled to present from the Russian tables of Captain Golowin another, covering the period from 1842 to 1860, inclusive, being as follows; 25,602 sea otters, 63,826 "otters," probably river otters, 161,042 beavers, 73,944 foxes, 55,540 arctic foxes, 2,283 bears, 6,445 lynxes, 26,384 sables, 19,076 muskrats, 2,536 ursine seals, 338,604 marsh otters, 712 "pairs of hare," 451 martens, 104 wolves, 46,274 castoreums, 7,309 beavers' tails. Here is an inexplicable absence of seal skins. On the other hand, sables, which belong to Asia and not to America, are mentioned. The list is Russian, and perhaps embraces furs from the Asiatic islands of the company.

From a competent source I learn that the value of skins at Sitka during the last year was substantially as follows: Sea otter, $50; marten, $4; beaver, $2.50; bear, $4.50; black fox, $50; silver fox, $40; cross fox, $25; red fox, $2. A recent price-current in New York gives the prices there, in currency, as follows: Silver fox, $10 to $50; cross fox, $3 to $5; red fox, $1 to $1.50; otter, $3 to $6; mink, $3 to $6; beaver, $1 to $4; muskrat, twenty to fifty cents; lynx, $2 to $4; black bear, $6 to $12; dark marten, $5 to $20. These New York prices vary from those of Sitka. The latter will be the better guide to a comprehension of the proceeds at Sitka, which of course must be subject to deduction for the expenses of the company. Of the latter I say nothing now, as I have considered them in speaking of the existing Government.

The skins, it appears, are obtained in three different ways:

first, through the hunters employed by the company; secondly, in payment of taxes imposed by the company; and thirdly, by barter or purchase from independent natives. But with all these sources it is certain that the Russian company has enjoyed no success comparable to that of its British rival; and still more, there is reason to believe that latterly its profits have not been large.

FISHERIES.

Here, as elsewhere, in the endeavor to estimate the resources of this region, there is vagueness and uncertainty. Information at least is wanting; and yet we are not entirely ignorant. Nothing is clearer than that fish in great abundance are taken everywhere on the coast, around the islands, in the bays, and throughout the adjacent seas. On this head the evidence is constant and complete. Here are oysters, clams, crabs, and a dainty little fish of the herring tribe called the oolachan, contributing to the luxury of the table, and so rich in its oily nature that the natives are said to use it sometimes as a "candle." Besides these, which I name now only to put aside, are those great staples of commerce and mainstays of daily subsistence, the salmon, the herring, the halibut, the cod, and behind all the whale. This short list is enough, for it offers a constant feast, with the whale at hand for light. Here is the best that the sea affords for the poor or the rich; for daily use or for the fast days of the Church. Here also is a sure support, at least to the inhabitants of the coast.

Salmon exists in unequaled numbers, so that this fish, so aristocratic elsewhere, becomes common enough. Not merely the prize of epicures, it is the food of all. Not merely the pastime of gentle natures, like Isaac Walton or Humphrey Davy, who employ in its pursuit an elegant leisure, its capture is the daily reward of the humblest. On Vancouver's Island it is the constant ration given out by the Hudson Bay Company to the men in their service. At Sitka, ships are supplied with it gratuitously by the natives. By the side of the incalculable multitudes swarming out of the Arctic waters, haunting this extended coast, and peopling its rivers, so that at a single haul Portlock took not less than two thousand, how small an allowance are the two hundred thousand which the salmon fisheries of England annually supply.

Herring seem to be not less multitudinous than the salmon.

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The *Cod* is perhaps the most generally diffused and abundant of all, for it swims in all the waters of this coast from the Frozen Ocean to the southern limit, and in some places it is in immense numbers. It is a popular fish, and when cured or salted it is an excellent food in all parts of the world. Palatable, digestible,

and nutritious, the cod, as compared with other fish, is as beef compared with other meats, so that its incalculable multitudes seem to be according to a wise economy of nature.

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Behind all these is the *Whale*, whose corporal dimensions fitly represents the space which he occupies in the fisheries of the world, hardly diminished by petroleum or gas. On this extended coast and in all these seas he is at home. Here is his retreat and play-ground. This is especially the case with the Right Whale, or, according to whalers, the "*right* whale to catch," with its bountiful supply of oil and bone, who is everywhere throughout this region, appearing at all points and swarming its waters.

Mr. SUMNER concludes his speech as follows:—

An object of immediate practical interest will be the survey of the extended and indented coast by our own officers, bringing it all within the domain of science and assuring to navigation much needed assistance, while the Republic is honored by a continuation of national charts, where execution vies with science, and the art of engraving is the beautiful hand-maid. Associated with this survey, and scarcely inferior in value, will be the examination of the country by scientific explorers, so that its geological structure may become known with its various products, vegetable and mineral. But your best work and most important endowment will be the Republican Government, which, looking to a long future, you will organize, with schools free to all and with equal laws, before which every citizen will stand erect in the consciousness of manhood. Here will be a motive-power, without which coal itself will be insufficient. Here will be a source of wealth more inexhaustible than any fisheries. Bestow such a Government, and you will bestow what is better than all you can receive, whether quintals of fish, sands of gold, choicest fur, or most beautiful ivory.

NEVADA.

THIS State, famed throughout the civilized world for its mines of silver, lies directly east of California, the Sierra Nevada Mountains forming a portion of its western boundary.

The general altitude of Nevada is about 4,000 feet above sea-level, and its general surface characteristics are barren ashy-colored mountains, arid plains and valleys covered only with sand and sage-brush. The compiler of this book has traversed a large portion of this State on horseback, and can speak feelingly of its parched and treeless wastes, its magnificent distances, its mirages, its sinking rivers and alkaline pools, and its wonderful wealth of precious metals.

Agriculture in Nevada has, as yet, received comparatively little attention; but sufficient has been done to demonstrate that where land can be irrigated it will generally produce bountifully; and here, as elsewhere throughout the mining regions of the United States, the farmer finds a ready market for his produce at remunerative prices.

Commissioner WILSON says:—

> Irrigation would further render valuable many acres of land in this State now regarded as worthless, and drainage and protection from overflow would reclaim hundreds of thousands of acres more. Were means adopted thus to render available for the purposes of cultivation, all the lands susceptible of such improvement, and within convenient reach of the necessary supply of water for purposes of irrigation, it is believed that the tillable lands would amount in the aggregate to several millions of acres, probably equal to the aggregate of the surfaces of Connecticut, Rhode Island, and Delaware.

We are indebted to J. Ross BROWNE's Report for the following:—

> Much of the soil, both in the valleys and upon the mountains,

is rich and friable, being easily tilled and abounding in the elements of fruitfulness, but unavailable for agricultural purposes because of its aridity and the lack of means for its irrigation. Both the open plains and the more concentrated valleys are, for the most part, destitute of timber and illy supplied with grass and water, the latter, where it does occur, being often so impregnated with mineral substances, or so warm, as to render it unwholesome. To its system of mountains, valleys, and plains, the latter so spread out and often connected together as to constitute a series of basins, each having a drainage of its own but no outlet to the sea, Nevada is indebted for its singular hydrography, the common receptacle of its gathered waters becoming, according to circumstances, a lake, sink, meadow, alkali flat, or a salt bed.

The only waters of Nevada that are supposed to reach the ocean are a few inconsiderable streams in the northern and southern portions of the State, tributaries respectively of the Owyhee and Colorado rivers. With these exceptions, all the waters of the State collect in lakes or *sinks*, so named because they sink and disappear. During the dry season the water thus collected frequently evaporates, leaving upon the surface of the ground a variety of alkaline salts which glisten in the sun, whence the name "alkali flats."

LAKES.

The only lakes of any considerable size in the State are those formed by the Humboldt, Walker, Carson, and Truckee rivers, and bearing the names of those streams respectively, together with Pyramid Lake, the largest of the group, formed by the waters of Truckee River.

Lake Tahoe, with one-third of its area only within the borders of Nevada, is a beautiful sheet of water, twenty-one miles long and ten miles wide, and though elevated more than six thousand feet above the level of the sea it never freezes over, nor does the temperature of its waters vary much from fifty-seven degrees in summer or winter, owing probably to its being fed by springs. This lake, like Lake Pyramid, abounds in trout of large size and fine flavor, and is surrounded on every side by lofty mountains, which, rising abruptly from its shores, are covered for nearly two-thirds of the year with snow, and are heavily timbered with forests of pine, spruce, and fir. Pyramid Lake, which has a depth of one thousand five hundred feet, is twelve miles wide by thirty in length, and is situated in the western part of the State; its scenery is extremely grand, being walled about with mountains two thousand to three thousand feet high.

Mono Lake is about fourteen miles long and nine wide; it is so acid and nauseating as to render it not only unfit for drinking,

but also for bathing. Leather immersed in it is soon destroyed, and no animal, not even a fish or frog, can for more than a short time exist in it. The only thing able to live in or upon the waters of this lake is a species of fly which, springing from a larva bred in its bosom, shortly dies, and, collecting on the surface, drifts in great quantities to the shore, to be gathered and eaten by the Indians. None but the strongest winds can ripple the surface of this desolate lake; it may aptly be called a Dead Sea, its bitter and fatal waters rendering it literally such, while all its surroundings, wild, gloomy, and foreboding, are highly suggestive of sterility and death.

There are many warm and cold springs in the State, some of which are much resorted to for the curative qualities of their waters.

SALT BEDS.

The extensive beds of this mineral are an important item in the economical resources of Nevada. It may be obtained in illimitable quantities of excellent quality in many parts of the State, and must eventually, when railroad facilities shall be extended through the State, be exported in large quantities.

TIMBER.

The only timber in this State suited for making first-class lumber is that found on or near the eastern slope of the Sierra Nevada mountains. There are in the central and eastern parts of the State a few groves of spruce and white pine; but the trees are comparatively small, and the wood for the most part soft and brittle. The prevailing tree, where there is any east of the Sierra, is the scrubby pitch pine, having a low bushy trunk, from ten to fifteen inches in diameter, and from twelve to thirty feet high.

MINERAL RESOURCES.

SILVER.

Our space will not permit us to give a detailed account of the various silver mines and mining districts of Nevada. We can only refer particularly to the "Comstock" lode, upon which are the richest and most productive silver mines in the world. We again quote BROWNE:—

THE COMSTOCK LODE runs along the eastern slope of the Washoe

mountains, at the foot of Mount Davidson, its loftiest summit. Its outcrop is not by any means continuous, consisting of parallel belts of quartz, extending from east to west, in some places nearly one thousand feet, which show themselves chiefly on the tops of the spurs, running down from the main ridge. The western of these quartz seams, being of a hard crystalline texture, form the most prominent outcrops, but experience has shown them to be of less value than the eastern bodies, which, from their different composition, have been more easily disintegrated, and are often covered up by the debris from the higher and steeper portions of the mountain.

LENGTH OF LODE.—The vein has been more or less thoroughly explored, and its continuity established by underground workings for a length of about three and a half miles, though the productive portion forms but a small proportion of the whole, as barren spots of great extent intervene between the bonanzas or ore bodies.

STRIKE OF LODE.—Its "strike" or course, as shown by the exposure of the west wall, in numerous places, is nearly magnetic north and south (north sixteen degrees east by true meridian).

But little doubt now exists that the Comstock is a true fissure vein, with a width of from 20 feet upward.

The total product of the Comstock lode for the year ending December 31, 1867, is estimated by the most reliable authorities at $17,500,000. It is estimated that other districts in Nevada have yielded during the same period $2,500,000, making the total product of Nevada for the calendar year 1867, $20,000,000. The average percentage of gold and silver is about 66 per cent. silver, and 34 per cent gold. In the outside districts the proportion of gold is considerably less.

AMOUNT OF ORE RAISED FROM THE MINES.—The amount of ore raised from the mines on the Comstock lode may be put down at the present time at about 1,500 tons daily, and the total amount raised since the commencement of operations at about 2,000,000 tons.

YIELD OF ORE PER TON.—From information furnished by the superintendents of the following mines, the yield per ton appears to be—

Savage mine—30,250 tons produced in the last six months of 1866, yielded an average of $42.93 per ton.

Hale and Norcross mine—16,836 tons produced in the same time, yielded an average of $50.33 per ton.

Gould and Curry mine—62,425 tons produced in 1866, yielded an average of $28.64 per ton.

The total yield of precious metals from the "Comstock" lode in five years, or from 1862 to 1866, inclusive, was $63,000,000.

COAL.

No heavy deposits of coal have yet been found in the State. Some discoveries have been made of small veins, or strata, of lignite of inferior quality, but nothing yet which seems to warrant the hope of finding it in quantities sufficient to be of much value.

COPPER.

In many localities in different parts of the State, strong and well marked veins of copper ore occur, but so little work has yet been done upon them that no opinion can be expressed of their value or permanency.

The laws and customs of Nevada, which are recognized by the Government of the United States, permit miners, upon the discovery of metal-bearing lodes in an unoccupied locality, to organize a mining district, designate its bounds, pass a code of laws regulating the location and tenure of mining property, and choose a recorder of locations. These districts are usually from 10 to 20 miles square, though governed by the physical features of the country and the contiguity of other districts.

The laws of Congress permit miners to go upon the public lands and take possession of the mines, promising no interference. The ground is public and open to all the world. Any man can go upon it, and by finding a vein of gold, or silver, or any other ore, can make it his own, and is assured and protected in his title. In no other country is such a privilege given. A country stored with wealth invites the people of all the earth to come and take possession, and become independent land-owners and miners.

CLIMATE, ETC.

The climate of Nevada is not unpleasant, and is exceedingly healthful. This region, like California, has its wet and dry seasons. The native plants and flowers are few, and except in insects, the State is barren of animal life, beyond example. With the exception of the pine-nut—the staple diet of the Indians—a few wild currants and gooseberries, there is little in the vegetable world that civilized man considers eatable. There are no wild plums, blackberries, strawberries, or grapes.

There are no beasts of prey, save a few wolves and cayotes, and game is exceedingly scarce. The State has few reptiles, and none of them venomous except the rattlesnake.

SOCIAL, INDUSTRIAL, AND EDUCATIONAL PROGRESS.

In all these departments, Nevada has made rapid and gratifying progress. Her population is distinguished for industry, order, and a ready obedience to lawful authority. Already nearly 30 church edifices have been erected in the State, at a cost ranging from $2,000 to $40,000 each, and an aggregate expense of about $300,000. These represent the leading Christian denominations, and are in some cases spacious and handsome buildings. Numerous well conducted schools have been established, under an enlightened educational system, for the support of which liberal provision has been made by the State. There is also a number of academies, seminaries, and high-schools sustained by private patronage. Capacious halls for literary, social, and benevolent purposes have been erected in all the large towns, several of which are supplied with gas and water-works, and commodious buildings for municipal uses. Besides many minor industrial establishments, several large founderies and machine shops have been erected in the vicinity of Virginia, and one, also of considerable capacity, at Austin, near the center of the State. A salt mill, an acid factory, and a tannery and pottery speak of the diversified pursuits now obtaining a foothold, and a well-patronized press, issuing five daily and as many weekly journals, indicate the intelligence and enlightenment of the people.

Nearly every cereal grown in the most favored regions elsewhere can, with proper care, be successfully grown here. Even the more delicate fruits common in the temperate zones, such as pears, peaches, and grapes, can be raised in Nevada, if the soil and site be judiciously selected and their culture properly attended to, while in the matter of vegetables, except the more tender kind, no country can produce them with greater facility or of better quality, if the requisite attention be paid to their culture. Besides the vegetables and grain raised in this State, large quantities of butter and cheese are annually produced, and these commodities are very justly esteemed for their excellent flavor. Taken in the aggregate, the amount of stock kept in the State is quite large; the neat-cattle number between 11,000 and 12,000, and the horses and mules kept for farming purposes and draft about 6,000, besides between 3,000 and 4,000 sheep and about the same number of swine. The ranges of mountain pasturage found in many parts of the State, with an almost universal absence of weeds, burs, and wild animals to injure the wool and endanger the lives of the flock, should recommend this country to wool growers and sheep herders abroad. The tulé lands furnish a good field for raising swine. These animals thrive well on the root of that rush, even without other food. It is estimated that there were 75,000 tons

of hay cut and 6,000 tons of grain raised in the State the present year, besides sufficient vegetables for home consumption. There are three flour-mills, one in operation and two in course of erection; 24 saw-mills, driving 35 saws, and having a capacity to cut daily from 5,000 to 20,000 feet of lumber each, or an aggregate of 180,000 feet. The most of these mills are propelled by steam. Their cost ranges from $5,000 to $15,000; total about $175,000. The number of quartz mills and reduction works in this State, including such as are in course of erection, having their machinery and material on the ground, with the prospect of an early completion, may be set down at 160. The most of these mills are driven by steam, the whole carrying an aggregate of about 1,300 stamps. The individual cost of these establishments varies from $3,000 to $950,000, the cost of the greater part ranging from $40,000 to $60,000 each, though quite a number have cost $100,000, and several much larger sums. At the present time nearly all of these establishments are in constant and profitable operation. None of those completed and in condition to do good work are idle. About 60 miles of ditching, the most of it of large capacity, has been constructed in the State for the purpose of conducting water to points where required for the use of mills or for domestic wants, besides a large amount of work expended on other projects of this kind but partially completed, and a multitude of smaller ditches dug for irrigating purposes. Over 1,000 miles of toll-road, some portions of it very costly, has been built, either for subserving local necessities and wholly within the State, or for the purpose of improving thoroughfares over the Sierra, or connecting those with points in the interior. The sums expended on account of these improvements amount in the aggregate to scarcely less than a million of dollars.

PRINCIPAL CITIES AND TOWNS.

Carson City, the capital of the State, is a flourishing town, with a population of about 3,500. It is situated in a fertile and well-watered district.

Virginia City, the largest in the State, has a population of more than 20,000. It owes its rise and continued prosperity to the "Comstock" lode, which lies partly within the city limits, and extends into the suburbs, Gold Hill and American Flat.

Austin, in Lander County, with a population of 12,000, is a thrifty city, the center of the Reese River mining region. It

is well-built, is lighted with gas, and churches and schools are liberally supported.

WAGES, BOARD, ETC.

Miners and ordinary mill hands, receive from $3.50 to $4 per day, in coin. Blacksmiths, carpenters, engineers, &c., from $5 upward, according to skill. Board averages from $8 to $10 per week. Many Chinamen are employed as laborers, upon the railroad, servants, cooks, &c., who receive from $30 to $40 per month.

COUNTIES.

DOUGLASS COUNTY, on the western border of the State, has a population of about 3,000. It contains more valuable timber than any other except Washoe County. About one-third of Carson Valley, in Douglass County, is good farming and meadow land, the remainder consists of gravelly and sandy sage barrens, the most of it incapable of producing good grain crops, even with the aid of careful culture and irrigation. This comprises all the tillable soil in the county, with the exception of 2,000 acres lying in Jack's Valley one mile northwest of Carson. Outside these the country possesses a rugged surface and a barren soil. There are a number of saw-mills on Carson River, which have, together, cut 50,000 feet of lumber per day. There are about 60,000 to 70,000 acres of excellent timber lands in this county on the slopes of the Sierras.

As yet no productive mines have been developed within its boundaries.

Haymaking and stock-raising constitute the principal pursuits of its inhabitants. Much poultry is kept by the farmers, and considerable quantities of butter and cheese are made annually.

ORMSBY COUNTY.—Though of small dimensions, devoid of productive mines, and containing but a small amount of arable land, its central and eligible position, extensive pineries, and ample water-power, have built up within it important industries, rendering the population among the most thrifty in the State. Carson City is the capital of the State, and has been selected for the location of the U. S. Branch Mint. Present population about 2,500, mostly engaged in teaming, lumbering, and cutting fire-wood. Two-thirds of the inhabitants reside in Carson City, and a sixth in Empire, three miles east of Carson. Three-fourths of the country is covered with mountains. A considerable amount

of lumber is made in this county. The forests of pine and fir, with water-power in their midst, and the proximity of the Comstock mines, insure a constant market, and supply many advantages for carrying on the business. The average yield of barley was forty bushels per acre last year. The United States Branch Mint is constructed of sandstone from quarries near by, as also the penitentiary and county buildings.

There are eight quartz mills in this county; five driven by water and three by steam and water, the whole carry 175 stamps and cost $450,000. They are all kept running on ores from the Comstock vein.

WASHOE COUNTY.—This county has no productive mines. Its wealth consists largely of its agricultural resources. It has about 150,000 acres of farming, grass, and timber lands; the remainder is arid and barren waste, unfit for cultivation. Population about 3,000.

Lumbering and quartz milling are extensively engaged in. There are ten quartz mills within the limits of the county, carrying in the aggregate 281 stamps, and costing nearly a million and a half of dollars.

STOREY COUNTY.—This county is not only of limited extent but extremely barren. About 100 tons of hay are cut here yearly, but as yet no grain has been raised. The county contains 63 quartz mills, carrying 665 stamps, nearly all driven by steam.

LYON COUNTY has but little arable land. Some hay is cut, and some vegetables raised. The only mining districts in the county that continue to maintain an organization are the Devil's Gate, Blue Sulphur Springs, Brown's Indian Spring, and Palmyra, in none of which has much active mining been done the past three years. There are 41 quartz mills in the county.

ROOP COUNTY is in the northwestern part of the State; it consists mostly of rough, arid, timberless mountains, and dry and sterile plains. All accounts, however, agree in representing Surprise Valley, 50 miles long, and from 10 to 15 miles wide, as one of the finest districts for stock-raising and grain-growing in the State. The planting of 1866 yielded an average of 50 bushels of wheat and 60 of barley to the acre. Vegetables grow with little care. Climate, mild and healthful. Little snow in winter, and sickness of rare occurrence. Stock requires neither shelter nor fodder in the winter, but are able to keep fat on the native grasses. Population 250 and constantly increasing as they feel secure against the Indians.

HUMBOLDT COUNTY.—This is one of the larger counties of the State. Its western half is covered with sandy deserts, low ranges of mountains, and extensive alkaline flats, converted in the wet season into mud lakes. The northern and eastern portions consist of lofty chains of mountains. Taken as a whole the region is

dry, desolate, and but illy supplied with grass, water, and timber. It is estimated that there are 200,000 acres of arable land in the county that can be made available to the farmer, with irrigation. The shipment of bullion from Humboldt County for 1867, was nearly $400,000, with a prospect of a large increase hereafter.

CHURCHILL COUNTY—The entire western half of this county, except near the waters of the Carson, is a sandy, sage barren, the most of it an absolute desert. In proportion to its size the county contains but little good land, the amount fit for hay-cutting or grain-raising not being over 50,000 acres, in an area of 6,000 square miles. Sulphur and the chloride and carbonate of soda are plentiful. Some ten or twelve mining districts have been laid out within the limits of this county. Very little work has been done here for the past three years, and latterly there have been but few inhabitants in this district.

LANDER, NYE, AND LINCOLN COUNTIES constitute what is generally called Eastern Nevada. They embrace, together, considerably more than half the territory of the State. * * * A peculiar feature of this section is, that it has no outlet to the sea, but its streams, which, though generally small, are quite numerous, flow from the mountains to the valleys, sometimes for a considerable distance in the valleys, and then are lost in the sand. The mountains, which rise precipitously, are from a few hundred to 5,000 feet above the subjacent plain; and, as the general elevation of the plains is about 5,000 feet above the sea, the most lofty peaks attain an altitude above tide-water of 10,000 feet. These hills and mountains are usually covered with scanty patches of pine, cedar, and mahogany trees, furnishing excellent fuel, but generally valueless for building material, although there are localities where there are groves of pine, from which a fair quality of lumber is manufactured. These hills and valleys, if forbidding in their general aspect, and apparently barren, produce a most excellent and nutritious species of bunch-grass, and constitute a very superior grazing country; while, in the many cañons of the mountains, and in all the large valleys, are tracts of land of an exceedingly productive character. The lands susceptible of profitable tillage amount in the aggregate to a considerable area, and are capable of furnishing most of the products of the farm grown in temperate climates. The grasses, grain, and vegetables are of good quality. Agriculture and manufactures can be conducted on a limited scale, and will be great assistants to the chief resource of the country—mining. The mineral-bearing veins of Eastern Nevada were first made known in 1862, at the time when attention was called to the subject by the developments made upon the "Comstock ledge," and from which near $75,000,000 of silver have been taken. * * * *

In Lander and Nye counties a large number of mining districts have been organized, and many excellent mines developed, and costly mills built. The principal pursuit of the inhabitants of both these counties is mining. Salt exists in abundance.

In Lincoln County, many of the mountain ranges are found to contain metalliferous veins of greater or less magnitude and value, but the most valuable, so far as discovered, and the only ones yet at all developed, are situate in the Pahranagat district, in the eastern part of the county.

Pahranagat Valley, which is 35 miles long, north and south, and 10 wide, contains about 20,000 acres of natural meadow land, or of soil that can be rendered arable by irrigation.

The following is a portion of the Report of Commissioner CAPRON respecting Nevada:—

Our only reports from Nevada come from the counties of Washoe and Esmeralda. The agricultural portions of the former were sparsely settled prior to 1860, and but little attention had been paid to raising cereals, or even vegetables, the chief production being hay from the wild grasses bordering the ponds or streams of water; the opinion generally prevailed that the soil beyond these margins named was worthless, but from small experiences made, confidence in the productiveness of the soil in the higher portions of the valley began to increase, and at the present time it is generally conceded that all of the cereals and more hardy vegetables can be raised with profit. Many tracts of land have been taken up, therefore, and rendered productive and valuable, that have been considered worthless. The grass lands of 1860 are probably worth no more now than then, excluding improvements. Of Esmeralda, also, very little was known prior to 1860, at which time the mines were discovered, bringing in large numbers, and as a consequence, most of the agricultural lands were taken up, and are now under a good state of cultivation, showing an increase in value of not less than 100 per cent.

The average price of wild or unimproved lands in Washoe is $2.50 per acre, being Government as well as railroad company price, there being none held outside. The character of such lands suited to agricultural purposes is upland valley, covered with sage brush; soil sandy, in many places a loam predominating, in others a kind of clay. In Esmeralda the soil on the margin of the rivers, and in the valleys where there is water, is rich and deep; four-fifths of the unimproved land of the county are covered with sage brush, rocks, and a few scrub-trees, and is, consequently, worthless; the wood is pinyon pine, with a small portion of timber.

Washoe County embraces no marked or peculiar resources

excepting in minerals, which have not been thoroughly tested to an extent sufficient to demonstrate their value. Peavine Mountain, lying in the western portion of the county, evidently contains large bodies of ore, copper probably predominating, fused with gold and silver, but from the pecuniary inability of the owners of lodes, together with other hindering influences, they have not been developed.

Our Esmeralda reporter writes as follows:—

"Our minerals are principally silver and gold in most of the districts. The ledges are large and the rocks rich, they being the only productive minerals thus far; but we have copper, iron, lead, cinnabar, gypsum, and some large salt beds, some of which are 20 acres in extent, and the salt two to four feet thick. For the great want of capital in this new county the mines are but partially developed, and it is believed that no place offers greater inducements to capitalists than this county."

The hay crop is the specialty in Washoe; the grass of the natural varieties mainly, though considerable attention is now being paid to timothy, and some to the clovers. But little dressing has been put upon these lands as yet, but they would doubtless be improved thereby. In Esmeralda, wheat yields about 30 bushels to the acre; barley about 35 bushels; oats 40; corn 30; and potatoes 150 bushels—the culture and profit of which are satisfactory.

Blue-joint, red-top, clover, peavine, wire-grass, wild rye, &c., are the natural grasses, upon which farm animals frequently graze the entire year, and perhaps 11 months on an average. Our Washoe reporter estimates the cost per head for keeping full-grown stock, $25 to $30 per year, whilst in Esmeralda it is given at $15 per head.

Fruit has been but little tried as yet, but apples, peaches, &c., of the hardier varieties, have done well so far as experiments have been made. The question has not been so fully tested, however, as to warrant an opinion as to capabilities.

IDAHO.

THE Territory of Idaho, the "Gem of the Mountains," lies directly east of Oregon and Washington Territories, with Nevada and Utah forming its southern boundary.

The length of the Territory from north to south is 410 miles; its width on the southern boundary is 385 miles, while on the northern it is only 50. It contains 58,196,480 acres, nearly all of which is open to settlement as public land. Its population is about 22,000. The Territory is best known for its mines of silver and gold.

The general characteristic features of the surface of Idaho are lofty mountain ranges, abounding in rugged spurs; deep gorges and cañons cut by furious torrents, with frequent beautiful agricultural valleys, vast areas of desert waste covered with drifting sand or the "everlasting sage brush."

MOUNTAINS.—The principal mountains in Idaho, are the Rocky, Bitter Root, and the Bear mountains, on the east, with the Owyhee range on the south. The Boise range is a spur of the Bitter Root.

RIVERS.—The Snake River and its branches drain the whole Territory, except a portion, of about 120 miles long and 45 wide, in the extreme northern part, which is drained by Clark's Fork of the Columbia and its branches, and an irregularly-shaped portion in the southeastern corner, which is drained by Green and Bear rivers. Bear River falls into Salt Lake, and Green River empties into the Colorado. This portion of the Territory has some farming and a large amount of good grazing lands, and is very scantily supplied with wood. No mines have been discovered in it. The principal branches of the Snake River in Idaho are the Clearwater, Salmon, Payette, Boise, and many small rivers and creeks, which, uniting, form a large river, with many falls and rapids and a current of great swiftness.

VALLEY OF THE SNAKE.—The Valley of the Snake is a huge crescent-shaped basin, about 500 miles long, and 250 miles at its greatest breadth. The whole interior is a bed of volcanic rocks,

in which the rivers have cut deep cañons. The surrounding foothills are generally covered with bunch-grass, affording excellent pasturage. Along the streams are many valleys containing tracts of land well adapted to agriculture.

Boise Basin.—In some parts of the Boise Basin the sand is loose, and the wind drifting it over the plains obliterates all traces of vegetation. Whirlwinds often raise it to a great height, and when one of these dust storms passes a train of men and animals, the air is darkened, and breathing is rendered difficult until the storm is over. In the northeastern part of the basin, on the south side of Clark's Fork, are three lone mountains called the Three Titans; they rise, ragged and sharp in their outlines, and form a notable landmark for travelers. North of Fort Hall are three similar peaks called the Three Buttes, visible for a great distance. The highest, called Cedar Butte, is near where Lewis's Fork empties into the Snake. It is scantily covered with scrub cedars, and like the others, is undoubtedly of volcanic origin. When the whole country is densely populated the Snake River will be turned out of its bed, and used to irrigate this basin. In that way it can be rendered productive. If this river and its tributaries should thus be directed, navigation would sustain but little loss, while agriculture would be greatly benefited. All the streams emptying into the Snake some distance below the Shoshone Falls sink before they reach the river, and passing under the strata of lava, come out on the sides of the Snake cañon. Several of them shoot out at such a height as to form beautiful cascades; some at perpendicular leaps, others in a succession of small falls; some combine falls and rapids, and assume the most beautiful forms of falling water imaginable. The white spray and foam strikingly contrast with the black precipitous walls down which the rushing torrent plunges into the river below. In one case a river ran over the surface until it had worn into the rock a cañon about a half mile long. A beautiful basin or small lake still remains where the water formerly passed over. In process of time it formed an underground channel, and now comes out at the foot of the rock where the falls once existed. It is perfectly clear, and although the depth is great, the trout with which it is crowded can be distinctly seen at the bottom. Along the stream on each side of the cañon is a narrow belt of fine grass and willows, entirely hidden from view until the spectator stands on its banks. The contrast between the beautiful verdure here and the awful desolation of the surrounding plain is very striking.

The Boise Basin divides the mining portions of the Territory into two parts; one south and one north. The southern or Owyhee mines are in the Owyhee Mountains, and do not cover near the extent of the northern portion, which embraces the Boise, Lemhi, Salmon River, and Oro Fino mines.

Towns.—Boise City is situated on the east side of the Boise River, at the head of the fertile valley of the same name. It has a beautiful location, is well laid out, and contains many fine buildings. Nearly all the passengers and supplies for Boise Basin have to pass through it; hence it is a great staging center. Situated between the Owyhee and Boise mines, it will long be the commercial center of the southern part of the Territory. The climate is milder than in the mines, and resembles that of Utah. Boise Basin is about thirty miles northeast from Boise City. Its length is from fifteen to eighteen miles, and breadth from six to eight. It contains a number of towns and many mining districts, and is the most populous part of the Territory. The present population is estimated to be about 10,000. Idaho City, the largest town, was recently burnt, but has been partially rebuilt. It contains probably 4,000 inhabitants. Central City, Placerville, and Pioneer are well-built mining towns, containing about 1,000 inhabitants each. Salmon River has been the scene of two wild mining excitements. One in 1862, at Florence, on Meadow Creek, where 8,000 or 9,000 miners collected—to leave in as short time as they assembled. The town contains at present about 200 persons. The other excitement was at Lemhi, this summer, where 7,000 to 8,000 miners collected—to scatter as suddenly, except some 800 or 900 who had claims, or who could not get away. The valley of the Clearwater is a large and fertile agricultural valley, the home of the Nez Percés Indians. Lewistown, Oro Fino, and Elk City were once flourishing places, but now contain only a small population. Lewiston, from its situation at the confluence of the Clearwater and Snake rivers, the head of navigation, must in time become a place of importance. Warren's Diggings have a considerable mining population.

The portion of the Territory drained by Clark's Fork of the Columbia has a milder climate than is found farther south, and corresponds to the Yocko and Bitter Root valleys in Montana.

There are three lakes of considerable size in Idaho, the Cœur d'Aline, about twenty-four miles long, and two or three wide, very irregular in form; the Pen d'Oreille, a crescent-shaped lake, about thirty miles long, and five broad; and the Boatman, about the same length, and six miles wide. The Pen d'Oreille and Clark's Fork are navigable for steamers for eighty miles.

The discovery of the Owyhee mines led to the building of Boonville, Ruby, and Silver cities. Boonville was built first, and depended on placer mines; it is now nearly deserted. Ruby City was both a placer and vein mining town; at present it is supported by a few placer and quartz mills, neither increasing nor diminishing perceptibly in population. Silver City is the largest town in Owyhee. It is a picturesque village, neatly packed away among the mountains, in Jordan's Cañon, with mines, quartz

mills, hotels, stores, dwellings, school-houses, which serve for churches on Sundays, and an active mining population, and will long be a mining town of importance.—*Browne's Report.*

Governor D. W. BALLARD, in his annual message to the territorial legislature of 1866–'67, says:—

For the first two years after the settlement of our Territory, Idaho was looked upon only as a theater for speculation, and as a place for a temporary residence, where, by enduring the necessary toil and privations, rapid fortunes might be acquired. The Territory was first peopled by those whose object was the acquirement of a speedy fortune, and, this being done, to return either to the Pacific or Atlantic States; but this feeling is rapidly subsiding, and the abundant success attending both mining and agricultural pursuits during the past year is fast removing the prejudices that have formerly existed against Idaho as a location for permanent residence.

The most reliable information on the subject establishes the fact, that the yield of precious metals, in the aggregate, for the past year exceeds that of any preceding year. This, in connection with the fact, that operations in gold and silver quartz, our principal source of mineral wealth, are as yet only in embryo, is a source of gratification to every one concerned in the future prosperity of the Territory. The ledges already opened and worked uniformly present indications of increasing richness; in not a single instance have there been indications of depreciation in the deposits of mineral wealth. Only a small proportion of the gold and silver-bearing quartz ledges already discovered and known to be rich, some of them almost fabulously so, are as yet being worked. From observations made during the past summer by intelligent and scientific gentlemen, the conclusion is drawn that these ledges, which have yielded so abundantly during the present year, will next year produce still greater profits, while many more will be successfully opened, and their yield be found equally abundant.

Agricultural pursuits, for two years almost totally neglected, have been prosecuted during the past year with the most gratifying results. Many hundreds of acres in the Boise Valley and other localities have been brought under cultivation, and it is cheering to learn that the yield per acre, of both cereals and vegetables, will compare favorably with the yield of any other locality on the Pacific coast. The day is not far distant when but little, if any, of the productions raised on the Pacific coast will be brought over the Blue Mountains for the support of the people of Idaho Territory. Arrangements for more extended

operations in both mining and agricultural pursuits are already in progress for the ensuing year. The amount of land cultivated this year will doubtless be more than doubled next, and it is safe to estimate that equal success will attend the mining interests of the country. In connection with the agricultural interests of the Territory, it is not uninteresting to know that an enterprising farmer of Boise Valley, during the past summer, cultivated sorghum with the most successful results.

While the two principal pursuits of our Territory, mining and agriculture, have thus been prosecuted with efficient energy and success, all other industrial pursuits consequent upon them have been correspondingly remunerative, and it is believed that there are more settled families, more competent business men, more active and worthy working men, such as constitute the bone and sinew of every country, now in our midst, who look upon Idaho as their future home than there ever have been at any previous period.

The idea of extravagant speculation is giving way to patient toil and well-regulated economy, and, judging the future by the past, this healthier sentiment on the part of the people will gradually increase until Idaho will abound in all the fixtures and elements of a well-established and properly organized community. As the resources of the country are more and more developed, other branches of industry, hitherto dormant, will doubtless be thrown open for the active and energetic labor of the country. All things considered, the future of Idaho may now be looked upon with more confidence than at any former period of her history.

MINES.—The mines of Idaho occur in isolated groups separated by long tracts apparently barren in the precious metals. They may be divided into four districts. On the north, Oro Fino and Elk City; then east and west, the Salmon River, the Boise Basin, and Rocky Bar, and in the south, the Owyhee mines. Gold was discovered in this Territory on the banks of the Pen d'Oreille River, in 1852, by a French Canadian, but not in paying quantities. In 1860, a company of prospectors discovered the Oro Fino mines, and during that winter 25 men remained there. The mines at Elk City were soon after discovered. In the spring of 1861, 1,500 or 2,000 men came to work them. Oro Fino Creek has paid in spots for a distance of 20 miles; Rhodes Creek and Canal Gulch also proved to be good localities, and although no remarkably rich placers were found in 1861–'62 the mines paid very fairly. Since then the discovery of Boise Basin, Owyhee, and Montana have drawn the miners from this district. Except at Wassen's diggings, very little is done in this part of the country at present. When wages become cheaper, miners may rework these mines to advantage.

The POORMAN MINE.—In regard to this rich and celebrated mine, Mr. BROWNE remarks:—

The net yield of the ores from this mine is wonderful, and is due mainly to their richness. A large amount is left in the tailings. The managers are perfectly aware of this, for at the company's mill, by a well arranged system of reservoirs, all the tailings are saved, so that when the water leaves the last reservoir it is clear and can be used over again. This mill is well constructed and conveniently arranged. The ore is crushed wet and is amalgamated in pans. This collects the free gold, the silver from the chloride of silver, and a portion from the silver glance; but the gold from the sulphurets, and nearly all the silver in combination with sulphur, remain in the tailings. The average yield of the ore is $229.41 per ton.

A correspondent writes to the *Cincinnati Enquirer* from Boise City, under date of December 20:—

The first settlement commenced in the spring of 1863; the first shanty went up in Boise in July of that year. Now there are twenty respectable stores, with stocks ranging from $20,000 to $50,000. There are three hotels, seven livery stables, six blacksmith shops, one tin shop, two silversmith's shops, three shoe and boot shops, two saddle shops, two churches (small), three butcher shops, several restaurants, tailors', gunsmiths', and a variety of other shops. Also two fine flouring mills. Flour is now 7 cents per pound; pork, by the hog, 20 cents; retail, 25 to 30 cents; beef about the same; good milch cows, $50 to $100; butter, 75 cents to $1 per pound; milk, 75 cents per gallon; chickens, 75 cents to $1 per head; eggs, 75 cents to $1 per dozen —now $1.50; sugar, 25 cents per pound; coffee, 40 cents; dried fruit, 28 to 33 cents; lard, 35 cents per pound; potatoes, 2 cents; other vegetables in proportion; onions, 4 cents; cabbage, 3 cents, and so on. No out-of-the-way country ever improved faster than this. We have good farming tools—reapers, mowers, and thrashers. Orchards are beginning to bear. It is a good stock country. I am not yet feeding my milch cows. My young cattle are good beef running in the hills. There is a very small proportion of tillable land in the Territory, but what there is is generally excellent, being altogether very level. If ever you come here you will be sure not to like the appearance at first sight, for it looks like all hills and mountains; but I plucked wild flowers on the foot of the hills to-day, and herewith inclose one or two. We have daily mails from the East, California, and Oregon.

From the Report, for 1867, of LAFAYETTE CARTER, Surveyor-General of Idaho, we extract the following:—

CLIMATE.—The altitude of Idaho Territory, with its mountains and table-lands, renders the winters cold compared with the country lying west, but dry and healthy.

The Boise, Payette, and Weiser valleys are sheltered and mild.

SOIL.—The soil of the valleys is highly favorable to the growth of cereals and vegetation. Extensive crops are raised where irrigation is practicable. The alkali land, mostly covered with sage-brush, has proved well adapted to the raising of grain. The soil, reported second rate, being decomposed granite, yields the heaviest crops.

TABLE-LANDS.—The extensive table-lands are covered with wild grasses and wild rye, and are valuable for grazing.

TIMBER.—The mountains are clothed with pine and fir timber. The valleys are destitute of timber except a species of cotton-wood growing along the banks of the rivers. The valleys are depending upon the mountains at a heavy cost for lumber and fuel.

MINERALS.—Gold is found on the head-waters of all the rivers. Rich placer mines have been profitably worked for years on the Clearwater and Salmon rivers. Extensive placer and quartz mines are found on the Boise River and its branches, embracing several districts. Many rich quartz lodes of gold and silver have been discovered and partially worked; their future development depending upon the reduced cost of transportation and other expenses, which thus far have retarded the growth and prosperity of the country.

The quartz and placer mines of Owyhee County, situated in the southwest part of the Territory, have proved to be eminently rich so far as developed. Some of the ledges are being worked with valuable machinery, repaying the capital invested, though at an enormous outlay. The quantity and quality of the ore already abstracted are favorable indications of their future wealth.

Several thousands of gold and silver quartz claims have been taken up and recorded, more or less prospected, but the heavy expenses under which the miners of this Territory have labored, has, in general, prevented their successful development. The near approach of the Pacific Railroad to the southern borders of the Territory will materially reduce the cost of working the mines, when the resources of the country will be more favorably brought into notice.

POPULATION.—From the most reliable sources of information the population is estimated at twenty thousand. This does not include the floating portion of miners, which this year has been comparatively small.

IMPROVEMENTS, &c.—The farmers in general have erected

substantial dwellings, barns, and fences, and are extensively engaged in planting fruit-trees. Many thousands of apple, plum, pear, peach, and cherry trees have been planted, some of which are already bearing. These were obtained at a distance, under the customary disadvantages, but will, in another year, repay the risk and outlay.

The following description of the "shrub of the desert," which covers so large a portion of the great Plains of the West, may not prove uninteresting:—

"SAGE-BRUSH.—This shrub in general appearance resembles the cultivated sage, having the same form and color, flower, leaf, and branch; its aroma being similar, but stronger and not so agreeable. Its average height is about three feet; sometimes it attains the height of five feet, with a diameter of four or five inches. The sage is strictly the shrub of the desert. From the eastern foot-hills of the Rocky Mountains to the Pacific Ocean, and from Mexico to the British possessions, it occupies nearly all lands too poor and dry to support any other vegetation. It burns, even when green, with a quick bright flame, and in many extensive districts is the sole fuel of emigrants, miners, and prospectors. In the Slate Range district, in the southern part of California, it was used successfully as fuel in generating steam for a quartz mill. The cost of gathering and using it is about the same as that of wood in a moderately wooded district. Where Indian labor is available it is much cheaper. A smaller variety, called the white sage, is valuable for grazing in the winter. Cattle thrive on it, but it imparts a peculiar though not disagreeable flavor to beef."

MONTANA.

In the year 1803, Thomas Jefferson, the immortal author of the Declaration of Independence, proposed to Congress "the sending an exploring party to trace the Missouri to its source, to cross the highlands and follow the best water communication which offered itself from thence to the Pacific Ocean." Congress approved the proposition, and appropriated the requisite funds.

The command of the party was intrusted to Captain M. Lewis, a brave and reliable man, and Captain William Clark was appointed second in command. Their little army consisted of nine young Kentuckians, fourteen United States soldiers, an interpreter, and two French *voyageurs*.

The expedition, well armed and equipped, embarked on board of three frail boats, and with "stars and stripes" flung free to the breeze, this vanguard of the coming Yankee nation sailed away from St. Louis on the 14th of May, 1804, to penetrate a region as little known as the Polar Sea. Resting from the fatigues of their romantic and perilous journey, they spent the winter at the mouth of Big Knife River, among the Mandan Indians, and upon the 13th day of June, 1805, reached the now celebrated Falls of the Missouri, in the heart of the present Territory of Montana, about 75 miles from the city of Helena.

Lewis and Clark's description of these Falls is interesting. Of the Lower Falls their report says:—

For ninety or a hundred yards from the left cliff, the water falls in one smooth, even sheet over a precipice of at least eighty feet. The remaining part of the river precipitates itself with a more rapid current, but, being received as it falls by the irregular and somewhat projecting rocks below, forms a splendid prospect of perfectly white foam two hundred yards in length, and eighty in perpendicular elevation. This spray is dissipated into a thou-

sand shapes, sometimes flying up in columns of fifteen or twenty feet, which are then oppressed by larger masses of the white foam, on all which the sun impresses the brightest colors of the rainbow.

And of the Upper Falls:—

Captain Lewis heard a loud roar about him, and crossing the point of a hill for a few hundred yards, he saw one of the most beautiful objects in nature: the whole Missouri is suddenly stopped by one shelving rock, which, without a single niche, and with an edge as straight and regular as if formed by art, stretches itself from one side of the river to the other for at least a quarter of a mile. Over this it precipitates into an even uninterrupted sheet to the perpendicular depth of fifty feet, whence, dashing against the rocky bottom, it rushes rapidly down, leaving behind it a spray of the purest foam across the river. The scene which it presented was indeed singularly beautiful, combining all the regular elegances which the fancy of a painter would select to form a beautiful water-fall.

On the 12th of August they reached the "remotest waters of the Missouri." Soon after they drank from the Columbia, rolling its floods away to the west—sublime in its lonely majesty and grandeur—and on the 7th of November they looked for the first time upon the blue waters of the Pacific, feeling, perhaps, as much emotion as did Balboa, when he threw himself upon his knees and thanked God for permitting him to be the discoverer of this great ocean.

After many perils and privations, the returning party reached St. Louis on the 23d of September, 1806, after an absence of nearly three years. They had been mourned as dead, and their safe return was the signal for wide-spread joy. It was the great event of the day, and the whole land was swift to do them honor.

All the objects of the enterprise, as detailed in President Jefferson's instructions had been accomplished: the boundaries of science were greatly extended, and to our fathers was presented a knowledge of this empire of natural wealth and wonders—lands of matchless fertility, and exhaustless mines of silver, gold, and copper—which their posterity was destined so soon to fill with all the arts and embellishments of civilization, with wealth, with freedom and happiness.

The Territory of Montana lies between Dakota on the east

and Idaho on the west. It has an area of 143,776 square miles, or about 92,000,000 of acres, all of which is open to settlement as public land. Its present population is variously estimated at from 40,000 to 65,000. Although one of our most recently organized Territories, Montana ranks next to California and Nevada in its yield of precious metals, the first discoveries of which were made in 1862.

Embracing within its limits the range of the Rocky Mountains, and the heads of two of the greatest rivers that wind their long and devious courses through the lower countries to the Pacific and Atlantic oceans, this Territory may justly claim the appellation of the "Golden Summit."

CLIMATE.—The climate of Montana in the valleys is less cold than that of the Eastern States. It is colder in the mountains, and much snow falls. The Territory is everywhere remarkably healthy.

Mr. MAGUIRE, of Helena, M. T., in a little work upon the resources of Montana, says:—

Wild flowers spangle our hills in March, and hill and dale are robed in green in the month of April. Can that be said of any eastern section north of St. Louis? Excepting a few intensely cold days in January, and hot ones in August, the climate of Montana is remarkable for its equability—generally open and pleasant in the winter months, and mild and salubrious in the summer. And owing to the purity of the atmosphere—refreshed and modified, as it is, by the breezes of both oceans, and free of all malarious influences—she is one of the most healthful regions on the face of the globe. True, she is not an Italy or California; but her climatic condition is no more objectionable than that of Illinois, Wisconsin, Michigan, Minnesota, or any other Northern State. And is it not true that man, since Civilization began her northward march from the bright suns and flowery plains of the Mediterranean, has achieved his greatest triumphs in all the ennobling arts where skies were the angriest, and physical effort the most necessary? We are on the latitudinal lines which cross the most populous, prosperous, and wealthy lands of the globe, in either hemisphere, and nature has not been more lavish in her gifts at any other point of the world-girdling circuit. If you wish to breathe the enervating and miasmatic air of the tropics, follow the Missouri down to where she sluggishly pours her tribute to the sea; but if vigor of body and mind ye seek, come up to the beautiful valleys, sublime mountains, and stupendous cataracts which give her birth.

The following, respecting the agricultural and mineral resources of Montana, is taken from the Report of the Surveyor-General of the Territory:—

AGRICULTURE.—I find the land in the valleys, suitable for cultivation, to be first-rate and unusually fertile, almost every variety of the cereals yielding abundantly. A mountain stream of good size, generally, courses rapidly through the valley, increasing in volume from many springs and clear sparkling brooks from the adjacent hills and mountains. A sufficient supply of water for irrigation is generally afforded, and the table-lands, situated below the sources of the streams, can be watered with facility, thus adding a large percentage of fertile lands, which, until recently, were supposed to be confined to the bottoms alone. The soil of these table-lands is of fine quality, and it has been ascertained that the crops in such localities are more certain and quite as abundant as those produced on the low lands of the valleys. I believe fully one-third of the entire area of the Territory is susceptible of profitable cultivation.

The more important valleys, requiring immediate survey, are the Bitter Root, Deer Lodge, Hell Gate, Round, Big Hole, Beaver Head, Stinking Water, Jefferson, Madison, Gallatin, Boulder, Prickly Pear, including Helena and the Missouri, from the Three Forks to Cañon Ferry, east of Helena, in all of which there are settlements.

The arable lands in these valleys, from a careful estimate, amount to 9,000 square miles, and contracts will be let as soon as possible to experienced deputies for the survey of portions amounting to the present appropriation. Natural roads lead from the different valleys to the cities, towns, and mining camps, many of which are equaled only by the best improved roads in the States.

A ready home market is found for the produce of the ranches and dairies, and the supply of the different kinds of grain is, no doubt, sufficient for the wants of the population, until another crop is produced. Potatoes are selling at two cents per pound, and, together with other root crops, are in great abundance. The yield of potatoes has been so great, that I believe fully one million bushels could have been exported, and still leave enough for home consumption.

The wheat raised in Gallatin Valley is carefully estimated at 8,000 acres; and other small grains, such as oats, barley, rye, &c., are placed at 6,000 acres. From that already thrashed, the yield will be at least an average of thirty bushels to the acre, making, as a low calculation of all the grain in that valley, 420,000 bushels. Several of the other valleys have large crops this season, but I have no data of them.

The list shows 166,140 acres of land under cultivation, and the total valuation of property assessed, $5,708,118. Although the returns are not full, some idea can be had of the immense resources of Montana.

There are a number of flouring mills in the agricultural portions of the country, all doing a good business. There are three large ones in the Gallatin valley, and more are being erected in other places. From this time, no profitable shipments of flour can be expected into Montana.

GRAZING LANDS.—The grazing lands are of great extent, and of the best quality; there can be none finer in the world. The most nutritious grasses cover all the valleys, hills, and mountains, except on the very highest ranges. Cattle and stock of all kinds can be kept in good condition all winter on these lands, generally without even hay.

Beeves are taken from among the different herds at all seasons of the year, and found to be of the fattest and sweetest, making delicious food. The nutritious grasses make them more tender and of finer quality than the grain-fed stock of the States. Many large herds of cattle are now being grazed in the Territory, their number being estimated at 40,000. There are also numerous bands of horses and mules herded throughout the country, which, together with the oxen, are largely used for the transportation of goods between the different commercial points.

IMMIGRATION.—Owing to the Indian troubles on the plains this season, the great thoroughfares to this Territory were partially cut off, except the Missouri River, which was the only route free from molestation. Many availed themselves of this route, and a large number of boats landed at Fort Benton, loaded with freight and many passengers. The overland coach carried quite a number of immigrants through, but the dangers were so great that but few emigrant trains would encounter them. The northern overland route from Minnesota has been traversed, with interruptions by the Indians in some cases, and the mails are sometimes obstructed. The class of citizens who are generally coming into the Territory are those who intend making their homes here. Hence many families are coming and settling up the different valleys. The farming population is fast increasing, and a great number of miners find it profitable to devote their time to agriculture.

TIMBER.—Timber is generally found on the mountains and foot-hills, and along the water-courses. Pine, fir, and cedar predominate. Pine differs in size, according to its locality; on the slopes of the mountains, especially on the Pacific side, it is large; on the highest points it is short and scant. Firs (the balsam and spruce) abound on the northern slopes and colder regions of the mountains, often attaining great size. Cedar is usually stunted

and scrubby, growing on rocky, sterile soil, and used only for firewood. Timber for building, fencing, and fuel, as well as for mining purposes, is found in abundance to supply the wants of the settlers, and there is but little land that may be said to be without these necessary materials close at hand.

Numerous saw-mills are running constantly, to supply the demand for lumber, which sells readily at from $30 to $50 per thousand feet.

Building Materials.—Building-stone of granite, limestone, and slate is found in all portions of the country, together with the materials for brick, slate for roofing, &c. Superior fire-clay has also recently been discovered in great abundance, the want of which has been felt heretofore in building furnaces. Many fire-proof business buildings have been erected in Virginia City, Helena, and Sterling.

Mountain Passes—There are several passes over the mountains, some of which are doubtless feasible for the construction of railroads. The lowest of those now known are the Deer Lodge and Mullan's passes, requiring no tunnels, the former 5,000 feet and the latter 6,000 feet above the level of the sea.

Coal has been found on the Big Hole River, about sixty miles from Bannock City; in Jackass Gulch, on the east side of the Madison River; and at Summit district, near Virginia City. These are all bituminous, and the seams do not exceed three or four feet in width, as far as known. Coal also exists on the head of the Yellowstone River. Brown coal, or lignite, is found in great quantities on the banks of the Missouri and Yellowstone rivers, valuable as common fuel, but of no great value for manufacturing purposes. It is also found on the head-waters of the Teton and Marias rivers, branches of the Missouri.

Iron.—A deposit of iron ore has been discovered on Jackass Creek, a tributary of the Madison River, but its extent is unknown. It is supposed to be valuable.

Copper.—There is a group of copper lodes along the Muscleshell River, believed to be valuable. The lodes generally run east and west, and assayers have detected gold, in small quantities, in specimens examined. The width of vein is from three to four feet. As yet no arrangements have been made for working these mines, nor have any shipments of ore been made to any place for that purpose, so far as known. Some recent discoveries of placer copper have been made on Beaver Creek, near Jefferson City, which show some splendid specimens. But freights are so high that nothing can be made at copper mining until the rates are reduced.

Silver Mines.—The first discovery of silver mines in the Territory was made by Professor Eaton, of New York, on Rattlesnake Creek, opposite the town of Argenta. The mineral was

argentiferous galena. About the same time silver was discovered on the head of Prickly Pear Creek, above Beavertown. Subsequently lodes containing both gold and silver were discovered at and near Virginia City, in the Madison range of mountains, on the Jefferson, Prickly Pear, Ten Mile, and Boulder creeks, and also in the vicinity of Helena. The most recent discovery is on Flint Creek, a branch of Hell Gate River. On the head of this stream a district has been found abounding in silver lodes, the assays of which have been of astonishing richness. Great activity is exhibited there at present in prospecting, developing the lodes and building mills and furnaces. Many furnaces are being put up in different parts of the Territory. The best results obtained have been at Argenta, where, under the superintendence of gentlemen of skill and experience, the smelting works have been very successful, and several shipments of silver have been made this season.

PLACER MINES.—The first placer mines worked in this Territory were found on the Hell Gate River, in 1862. In the fall the mines at Bannock were discovered. In May, 1863, the mines on Alder Gulch, where Virginia City now stands, were discovered, and an immense impetus given to prospecting, and about $20,000,000 have been taken from there since that time. About a year afterward mines were discovered on Prickly Pear, where Helena now stands.

Valuable mines were discovered on the eastern side of the Missouri, and immense sums have been taken from Confederate Gulch and Montana Bar. Diggings were struck on the Big Blackfoot in 1865, which have produced largely.

All the gulches are on the head-waters of the Missouri, Columbia, and Yellowstone rivers, and are generally contained within the parallels of 45° and 47° 30′ and the meridians 110° and 114° west longitude. The number amounts to hundreds, and almost every day increases it.

At the present time there is great excitement in the western portion of the Territory about mines said to exist on the Big Bend of the Kootenay, which are probably within the limits of the Territory.

Gulch mining is attended with many difficulties in this country. The season is short, and the gold generally found on the bed rock, often fifty or sixty feet from the surface. When provisions and labor become cheaper, many gulches will be worked that at present are untouched. They are known to contain gold, but prices at present are too high to yield a profit on them.

Large amounts of money have been expended this season in ditches and preparations for gulch mining next year, and fully fifty per centum more gold will be taken out than has been the present season. I estimate this year's work at $20,000,000.

To conclude, not a tenth part of the Territory has been prospected.

GOLD-BEARING LODES.—The first gold-bearing lode of this Territory was discovered at Bannock in 1862, and called the Dakota. The surface indications were extraordinarily good, and gave a stimulus to prospecting which resulted in the discovery of many valuable lodes in that part of the country. The results from these lodes proving satisfactory, several mills were erected, and are now at work upon rock taken from them. Some of the largest and finest lodes of this section have been discovered this season, and the hope is entertained that quartz mining may prove successful in this the pioneer mining camp of Montana.

Several thousand lodes have been discovered in Madison County, many of which are in the vicinity of Virginia City.

There are a large number of mills in this county, either in successful operation or in process of erection, and the results thus far have been generally satisfactory. Much capital has been embarked in mining enterprises, and the work has been prosecuted with an energy that attests the confidence of the operators and gives assurance of success. At Summit City, eight miles above Virginia City, near the head of Alder Gulch, gold quartz mining is extensively carried on. The lodes are numerous and rich; several mills are in operation and others being built. From this point there is a succession of auriferous lodes to the foot of Alder Gulch, a distance of ten or twelve miles. Fine ledges are also found on the west side of the Madison range, in Ramshorn, California, and Beran's gulches, while Mill Creek and Wisconsin gulches afford good prospects. Some of the gold-bearing lodes of this region contain large quantities of argentiferous galena.

There is a valuable quartz district between Hot Springs Creek and Meadow Creek, on the east side of the Madison range, and still another to the north of it, on Norwegian Gulch. At the Sterling mining district, in this section, there are many valuable lodes, and five mills in operation. In some other of these places mills are at work, generally with fine success.

There are also mining districts on the waters of the Jefferson River, known as the Silver Star, Highland, and Rochester, in which lodes have been found of immense value, some of which, in their present undeveloped state, have sold for large sums. One, the Green Campbell, was bought by a New York company for $80,000.

There are several districts on the Boulder, Prickly Pear, and Flint creeks, and Deer Lodge River, which have shown fine indications, and are being worked to a considerable extent. One lode, the Atlantic Cable, situated on Little Moose Creek, a tributary of the Deer Lodge, gives extraordinary promise. Though little work has been done upon it, the sum of $180,000 has been offered for it and refused.

The Bailey lode, in the Dead Wood district, on the headwaters of the Little Blackfoot, also deserves particular mention. Parties who have been prospecting for it for the two past years claim to have recently struck the vein or crevice, and are taking out rock of remarkable richness.

To the east of the Missouri River, near Diamond City, is a large and promising quartz region, which is attracting much attention. Two mills are already in operation, and several companies have been organized, one of them with a capital of $1,000,000, and a working capital of $300,000, for the purpose of developing and working some of the leading mines. Large quantities of machinery, and all the necessary appliances for the successful working of the lodes and extracting the precious metals, have been ordered from the East, and large results are expected next season.

The district of gold mining now receiving a considerable portion of public attention is that around Helena, a great many of the lodes being situated on the Oro Fino and Grizzly gulches, to the southwest of the city, stretching along to the northward toward Ten Mile, connecting with that district and Blue Cloud.

The Union lode, No. 2, is situated near Grizzly Gulch. Recent crushings of ore have yielded seventy-two dollars to the ton. Another, the Park lode, is also doing well, while on the neighboring gulches there are many fine lodes, which only need labor and capital to make them rival any thing yet found in any mining country.

On Ten Mile Creek, a stream that flows from a source near the summit of the Rocky Mountains, in a northeasterly direction, there is a fine lot of lodes, some of which have assayed a large percentage of gold, while there is an intermingling of silver. Careful assays prove these lodes to contain from $25 to $300 per ton of ore, and by the "working test" made in St. Louis, $240 per ton has been obtained from rock taken from within seven feet of the surface. The veins are generally firm and solid within a few feet of the surface; the ledges from five to thirty feet high.

Blue Cloud, a new district, about ten miles from Helena, on Ten Mile, is opening out well. Machinery is being erected, and developments rapidly made.

In addition to the many mills, there are scattered over the different portions of the country, wherever there are any promising lodes, a large number of arastras. They are a rude mill, constructed for the purpose of working quartz, and generally driven by water-power. Most of them do well, and yield handsome wages to their owners. Some are erected for the purpose of developing mines, rather than going to the expense of bringing machinery on to the premises too early, deeming it best to prove the value of one good lode rather than own many with no knowledge of their intrinsic wealth. The owners of lodes are generally

anxious to procure Government patents for their claims, and already there have been several applications filed. Next season I have no doubt but a large proportion of the owners of quartz will take advantage of the mineral law to get titles to their mines.

There have been more valuable discoveries of lodes this season than ever before, and capital is being carefully used in developing them. By the use of an arastra, and a small amount of money, each lode can be tested economically and sufficiently. Five hundred thousand dollars judiciously expended this season would open out enough mines to insure the success of one thousand mills next year. This seems to be the general theory on which miners are working, and can consequently offer inducements to capitalists in another season.

The lodes in Montana are generally better defined than in any other mining country in the world, and the singular freaks sometimes taken by them in other regions are less frequent here. The simplicity of the ores is a theme of general remark, and although sulphurets are often found, they are taken as an indication of richness, and their appearance looked upon as a promise of ultimate success.

On the whole, the gold lodes of Montana look in every way encouraging; in every quarter the highest hopes are expressed, and all look forward to great wealth for the Territory from this source.

MISCELLANEOUS.—The principal shipments of merchandise to this Territory are made by steamboats, *via* the Missouri River, from St. Louis to Fort Benton, at a cost of about eight cents per pound. From this place transportation is had by means of ox, mule, and horse trains, to the towns and mining camps, at from three to five cents per pound. Fifty boats landed at Fort Benton during the last season, with freight to the amount of from one hundred to three hundred tons each, and were it not for the rapids above the mouth of the Muscleshell, many boats of larger capacity would engage in this service. Hence, a wagon road built by the Government from Helena to the most feasible point below those rapids would be of immense benefit to the Territory. Quite an amount of freight is also brought from California and Oregon through Washington Territory, over the mountains, on pack animals. Large trains of them are arriving now, but the mode of transportation is primitive and expensive, and a wagon road is much needed in that direction. The people here are looking with great solicitude for the action of Congress on this subject.

Our productions are such as to make us self-sustaining. Butter can be had at seventy-five cents, and potatoes and other vegetables at from two to five cents per pound; flour is worth ten

cents; grain, such as rye, oats, and barley, seven cents; beef and wild game fifteen to twenty-five cents per pound. In a word, all the necessaries of life are within the reach of any one, and, in proportion to the prices paid for labor, cheaper than in the States, offering to the industrious laborer inducements furnished by no other portion of the Union.

The climate is healthful, and, with an atmosphere devoid of humidity, is admirably calculated for those afflicted with diseases of the lungs, or any manner of rheumatic affections. The purity of the water, and the entire absence of all malarious influences, also render it well adapted to the invalid, suffering from any cause whatever.

But not alone in a practical view does Montana offer superior inducements to the people of the over-crowded States. Here, side by side, they find the grandest of the Creator's handiwork and the magnificent enterprises of man. Above tower the lofty peaks of the Rocky Mountains, covered with a luxurious growth of evergreens and capped with everlasting snow, while below is the sturdy miner with pick and shovel extracting the precious metal that is to sustain the national credit and honor, and the valleys covered with herds of cattle, stacks of grain, and all the evidences of increasing wealth.

With such advantages who can doubt the brilliant future of Montana Territory, and the important position she must one day take in the great sisterhood of States.

In conclusion I beg leave to present a letter from Professor G. C. Swallow, a gentleman of science and talent, who has given several months to investigations of the various resources of Montana:—

"HELENA, MONTANA, *October* 4, 1867.

"MY DEAR SIR: In compliance with your request I can only give you a very general statement of my impressions of Montana as a mineral and agricultural region, as previous engagements will occupy nearly all of the five days between this and the time when your report must be completed. I have spent the last four months in as complete and careful an examination of the mining and agricultural capacities of the Territory as the time would permit. The results already obtained in cultivating the soils of our valleys are such that there can be no reasonable doubt of the entire success of agricultural pursuits in the Territory. It certainly is one of the finest stock countries on the continent. All the more important domestic animals and fowls do remarkably well; horses, mules, and neat cattle are more hardy, and keep in better condition on the native grasses than they do in the States on hay and grain. As a general rule they winter well on the grass of the valleys and foot-hills without hay or grain. The valleys fur-

nish a large area of natural meadows, whose products are equal to those of the cultivated meadows of the Middle States. Beef fattened on the native pastures is equal to the best produced in the country.

"The small grains, wheat, rye, barley, and oats, produce as large an average yield as in the most favored grain-producing States; fifty and sixty bushels to the acre are not uncommon yields for Montana. Of the native fruits we have strawberries, raspberries, blueberries, service-berries, choke-cherries, haws, currants, and gooseberries, and there is every reason to believe that apples, pears, cherries, plums, quinces, blackberries, raspberries, strawberries, currants, and gooseberries can be cultivated in our broad valleys as successfully as in any of the mother States.

"All the more important root crops, such as potatoes, rutabagas, beets, carrots, turnips, radishes, and onions, and all the more important garden vegetables, are cultivated with great success.

"Timber is abundant on the mountain slopes and in some of the valleys. Five varieties of pine, two of fir, one of spruce, two of cedar, grow on the mountains and in the mountain valleys and cañons; balsam, poplars, aspens, alders, and willows on the streams. The pines, firs, spruce, and cedars furnish an abundance of good timber for building, mining, and farming purposes.

"The purest waters abound everywhere, in cool springs, mountain streams, meadow brooks, and clear, rapid rivers. Hot and mineral springs also occur. Beautiful lakes and magnificent waterfalls and cascades are numerous in the mountains.

"Veins of gold, silver copper, lead, and iron are found in great numbers in nearly all the mountainous portions of the Territory. So far as discovered, they usually come to the surface on the foot-hills and sides of the valleys and cañons. A large portion of these lodes are *true veins*, cutting through granite, syenitic, porphyry, trap, gneiss, mica slate, hornblende slate, talcose slate, argillaceous slates, sandstone, and limestone. These veins vary in thickness, from a few inches to fifty or sixty feet. The gangue or vein rock, called *quartz* by the miners here, is very variable in character. In the gold-bearing veins it is usually a whitish quartz, more or less ferruginous—often nearly all iron. In some veins it resembles a stratified quartzite; in others it is syenitic; pyrites, hornblende, calc-spar, arsenic, antimony, copper, and tellurium are found in these veins. In the silver veins the iron, so abundant in the gold veins, is usually replaced by oxide of manganese. This mineral is sometimes so abundant as to constitute the larger portion of the gangue. The gangue in many of the copper mines is usually quartz, heavy spar, calc-spar, and brown spar, more or less commingled.

"Many thousand lodes of gold, silver, and copper have already

been discovered and recorded, and a large number of them somewhat developed. It is true, as well as in all other mining regions, that a large part of the lodes discovered can not be worked with profit by the method usually adopted in new mining countries; but many of those which can not now be profitably worked will become valuable when experience has shown the best methods, and when labor and materials can be had at ordinary prices. But there is a very large number of large and rich lodes, which will yield large profits even at the present prices of labor and material; and there is quite a number of lodes of both gold and silver already discovered which will rank among the largest and richest in the annals of mining.

"This, like all new mining districts, presents serious obstacles and difficulties in the way of immediate success. These are obvious to all experienced men, and are expected in all such undertakings. But all this and other hinderances to the full success of our quartz-mining operations will soon be removed. They are evils which will naturally cure themselves. Better mills are now going into operation, better lodes are bought in larger quantities, good men are employed to manage, and owners of quartz property are offering better facilities for developing their lodes; capital is turned toward this source of wealth, and our best financiers are operating in Montana mining property.

"The placer mines, though very extensive, and in some instances vastly rich, have not yielded so much as in former years. But many new and rich discoveries have been made, and large sums of money spent in conducting water to favorite localities, and we have every reason to believe that the placers will yield as many millions as in former years to those hardy toilers who have labored so faithfully and successfully in securing this 'golden harvest.'

"In conclusion, it may be stated with safety that Montana has the agricultural capacity for sustaining any population which her mines, salubrious climate, and glorious scenery may attract to her fair land. Her mines are more numerous and more diffused than any other equal area on the globe, and they will prove as rich and yield as large profits as the most productive in this or any other country.

"Very truly yours,

"G. C. SWALLOW.

"General Sol. Meredith."

In a pamphlet containing the Governor's Message to the Legislature, November, 1867, we find the Report of the Superintendent of Public Instruction for the Territory, from which we take the following:—

EDUCATION.—We all believe and know that there is hidden in the rock-ribbed hills of our Territory such countless treasures as shall draw thousands upon thousands of settlers within our borders, to build up our future State; and it depends in a very great measure on the legislation of the present, what the preponderating class of those accessions to our numbers shall be. Let it be known that we have now, in our infancy, provided amply for the education of the young in our Territory, and hundreds of families will annually swell the list of those who come to Montana for a permanent home; and very many of those men who are now among us for a temporary sojourn, only to acquire a fortune from our golden mountains, will bring hither their wives and little ones, now remaining at home under the old roof-tree, and will people our beautiful valleys and build up our towns and villages.

What every lover of Montana wants to-day is, that a class of emigrants who desire above all things that their children shall be educated, may be induced to settle among us. Those men who never inquire, "Can my children have there the advantages of good schools?" when determining where they shall find a home, are not the men who build up great States. It is the part of wise men, looking only to personal interests even, that we now take such action as shall insure a rapid and healthy growth for our Territory; and no one thing, not even a positive assurance that our mountains were solid gold, can so effectually secure this much to be desired end as the establishing a thorough, far-reaching, and complete system of free schools.

A correspondent of the New York *Tribune*, writing from Montana, says:—

As far as the eye can see, the Gallatin, Madison, and Jefferson valleys present their green bottoms, luxuriant fields, and countless herds of the finest cattle, while the lines of the rivers and their numerous tributaries are distinctly marked by the dense growth of timber on their banks. I was charmed with this beautiful prospect, and lingered more than an hour to enjoy its delightful contrast with the parched waste of the prairies distant from water. A little more than threescore years ago Lewis and Clark stood in the same place, and made the first record of the source of the great river of the West, and the three rivers above were then first named in honor of the eminent statesmen then President and Cabinet officers of the nation. Then the source of the Missouri was in what were regarded as inaccessible wilds and wastes, where the home of the pale-faces would never be reared. To-day the most bountiful crops of the world are being gathered in the valleys of the Upper Missouri and its tributaries,

and the vast plains are dotted with the ranches of the successful husbandmen. But, rapid as has been the march of progress here in the past, it is but in its infancy. It was not a mere feverish speculation that planted a city, with 64 cabins, at the head of the Missouri, a few years ago. True, it was a step in advance of progress itself, and the cabins have disappeared, with a solitary exception, to grace the farms in the neighborhood; but I doubt not that they will return in a few years, and come to stay. The Missouri has been navigated and carefully explored from Gallatin to the falls above Fort Benton—a distance of 200 miles by the course of the river—and there are no obstructions whatever. An intelligent gentleman, who had been with the exploring party last year, informed me that light boats can navigate the Missouri in the dryest season, and one or two years at most will see a line of steamers plying from the Falls into the heart of the agricultural wealth of Montana. And while the steamers will come up from the North, civilization will be extending from Bozeman City eastward into the Yellowstone, and the rich placers of the Yellowstone, Big Horn, Wind River, and Muscleshell will make a continued line of white supremacy from the Mississippi to Puget Sound. The wonderful fruitful valleys will fully supply the miners, and the savage will recede or die before this "manifest destiny."

Of the agricultural settlements of Montana, the Gallatin and Missoula valleys are the most favored in climate—the eastern and western extremes of the Territory. I learn that the Missoula grows the earliest and finest vegetables raised in the mountains, although it is the least accessible of all the agricultural districts as yet. It is the northwestern county of the Territory, and is flanked by the Bitter Root range. So favorable has the climate been since the settlers have been there, that the more hardy fruits are about to be planted, with entire confidence that they can be grown successfully. The whole territory is made up of alternate mountains and valleys—the one studded with the precious metals, and the other teeming with the most bountiful crops I have ever seen. In four years, with trackless mountains and hostile savages to confront the pioneer, this Territory has been settled for nearly 200 miles in every direction from Helena, the central city, and with less than 30,000 people, it is second only to California in the production of gold and silver, and rivals that State in the growth of wheat to the acre. It has been cursed with adventurers in both business and politics, as has been the experience of all new territories; but its future will make romance pale before the swift march of progress.

The following extracts from letters received from citizens of Montana, will be read with interest:—

FORT BENTON, *August* 12, 1868.

F. B. GODDARD, Esq.: The lands for farming in this neighborhood are not the best nor the worst. The Territory abounds in good farming lands, and farmers are growing wealthy. As an instance, I have sold this season to the farmers and ranchmen about $15,000 worth of agricultural implements, comprising mostly reapers and mowers, and am now receiving orders for next year. For grazing, this Territory can not be beat. Butter generally brings $1 per pound, and milk sells readily at 75 cents per gallon.

Working men get no less than $60 per month, and in fact are the only kind that can do any thing. Fancy folks are not needed unless they have plenty of money.

Climate beautiful and healthy, although we are some distance north. The seasons are mild and delightful.

Fine coal beds abound within twenty miles of this place; our timber is mostly pine, but plentiful.

Every thing can be raised here you raise in your State, except corn, which *can* be raised, but not to good advantage. Flour made here is selling for $10 per 100 lbs.; potatoes 4 cents per pound; hay from $30 to $70 per ton, according to the locality. Any thing in the edible line will find a market in any part of the Territory, and facilities for transportation are good and abundant.

Commencing to educate some, but seemingly no time to spend in church.

All kinds of people can be found here, from the native American—the Indian—to the Chinaman; all looking after gold mines, but all don't find them.

Hoping these few lines will be of some benefit to you,

I am, respectfully, TOM C. POWER.

VIRGINIA CITY, MONTANA, *Aug.* 24, '68.

DEAR SIR: * * * The farms in our valleys are exceedingly productive. More wheat will be raised this year than is required by the people of the Territory. The prices of land are merely nominal, because they are generally pre-empted under the laws of Congress. The improvements necessarily cause an outlay according to circumstances. The supply of water by means of rain is inadequate in many seasons. Ditches convey the water from the mountain streams, which are abundant. The grass is nutritious, and cattle rapidly fatten upon it. Viewed simply as an agricultural region, I entertain a sanguine opinion respecting Montana.

The winters are longer than they would average in most of the

States, but the degree of cold does not range so low as that of Minnesota. Our mild season extends from April to October, generally.

In the summer, or working season in the mines, the usual price of labor is $5 per day, coin. The supply is fair at present. We need more farmers than any other class of laborers. Next year labor will not command so much—probably $4 per day in mines. The completion of the Pacific Railroad will achieve wonders for this section of the country. Labor and the necessaries of life will be diminished in cost. Upon January 1st, 1869, this great road will be completed to Ogden, about 400 miles from this point. The coaches, in two and a half days, will then convey passengers from the terminus of the road to Montana.

The climate is remarkably healthy. Physicians are continually complaining of this fact, which may be stated in the most positive manner. * * *

With the exception of Helena, Virginia City, and perhaps one or two other important towns, there can be no regular markets.

There are many Irishmen and Canadian French in Montana. The Germans are fairly represented; I trust there will be more of them. Many inhabitants of Missouri, who left that State during the war, reside in Montana.

I have thus diffusely talked of this Territory. Its future seems to me to be brilliant with promise. Send all the intelligent miners, whether native or alien, to our mines of gold, silver, and copper, and they will succeed.

I am, very respectfully,

HENRY N. BLAKE.

HELENA, *August* 25, 1868.

FRED'K B. GODDARD, Esq.:—

DEAR SIR: Your favor was duly received, and in reply to your inquiries as to Montana we would say:—

1st.—The character of our farming land is similar to that of Minnesota—sandy soil, well adapted to the raising of cereals and the hardier vegetables. Every portion of the arable land is cultivated by irrigation; water abundant.

2d.—Labor ranges from $2 to $5 per day in gold. Good farm hands can be had at $60 per month and board. Miners get from $50 to $175 per month, and board. There is more labor needed for the mines than for any other purpose.

3d.—Climate dry and equable; splendid in summer and autumn, cold in winter. There never was a more healthy climate.

4th.—Our mineral resources are varied, embracing gold in placer and quartz formations, silver, copper, lead, and iron. Coal has recently been found in several portions of the Territory. Timber is abundant, principally pine and fir.

5th.—Wheat, barley, and oats are the principal grains raised here. Corn does not grow, the season being too short for it to mature. Potatoes, cabbage, beets, onions, &c., grow splendidly here. Wheat is worth about $3 per bushel; oats, $1; barley, $1.20; vegetables from 3 cents to 7 cents per pound, according to supply and demand.

6th.—We are 140 miles from Fort Benton, which is the head of navigation on the Missouri River, and 600 miles from Salt Lake City, the nearest point to the Pacific Railroad; but we will very soon have railway communication through the center of our Territory, either by the railroad from Lake Superior to Puget Sound, or by a branch from the Central Pacific Railroad, or both.

7th.—We have three good schools and two churches at this point—the latter Northern Methodist and Presbyterian. An Episcopal society will soon be organized.

8th.—A very large proportion of our population are Americans, hailing from all sections of the Union, a majority being from Missouri, Illinois, Indiana, Ohio, and Minnesota. Foreign population principally Irish and German.

Yours truly,

T. E. & D. G. TUTT.

HELENA, *July* 30, 1868.

FRED'K B. GODDARD, Esq.:—

DEAR SIR: * * * Thousands of acres of as good agricultural lands as are found in any of our Territories, are here unclaimed. The value of improved lands depends upon their distance from a market—say from $2.50 to $15 an acre. Survey of our Territory not yet completed; consequently none of the lands are as yet paid for.

None of our Territories offer the inducements to the industrious emigrant that this does. We are especially favored of Providence, possessing a healthy climate, rich lands, that with but little labor can be made to blossom like a rose. Being principally a mining community, the farmer has a home market for his productions.

Very respectfully,

L. H. HERSHFIELD, Banker.

ARIZONA.

About two hundred years ago a Jesuit missionary from Sonora, in Mexico, penetrated the wilds of this vast region, and established churches and schools at various points, for the instruction of the Indians. Returning, he spread such reports of its mineral treasures, as produced a rapid emigration thither, and more than a hundred gold and silver mines were soon in successful operation, the labor upon which was mostly performed by Indians, who were soon reduced to slavery by the Spaniards, and most barbarously treated.

It is said that in the Mission of St. Xavier, in Tucson, and at other missions in the Spanish towns along the Gulf of California, records and maps were preserved, showing that at this period, forty or fifty flourishing towns and villages were in existence in the present Territory of Arizona, and that considerable progress had been made in the cultivation of the soil. The ruins of towns, cathedrals, and irrigating canals, are still frequently to be found in the valleys of the Colorado, Gila, and other rivers—relics of the busy industry of those early days.

After many years of endurance the Indians finally revolted, massacred or drove out their oppressors, and the country soon relapsed into a wilderness, roamed over by that most terrible of all the savage tribes upon the face of the earth—the Apache.

Arizona formed a portion of the Territory of New Mexico, until more recently it received a separate Territorial organization. Its present boundaries are, Utah on the north, New Mexico on the east, Mexico on the south, and California and Nevada on the west, the Colorado River separating it from those States.

The surface features of the Territory may be described as

consisting of elevated table-lands, broken by rugged mountain ranges, interspersed with sandy wastes and fertile valleys. Some of these valleys are of extraordinary beauty and fertility, producing bountiful crops of wheat and other grains, tobacco, fruits, and vegetables. In the southern portion of the Territory, cotton and sugar may be profitably raised, and on the hills and mountain sides are some of the finest grazing lands in the world, covered with a rich and abundant pasturage.

It may be safely stated that wherever land can be well irrigated in Arizona, it will produce double the crops per acre of land in the Atlantic States. It is estimated that at least five million acres may be thus brought under agricultural subjection. In addition, there are fifty-five million acres of grazing land in the Territory. Even the celebrated Colorado Desert, bordering for 150 miles the river of the same name, has a rich soil, composed of alluvial earths, marl and shells, needing only moisture to awaken its fertility; and it may easily be irrigated, as it lays below the bed of the river. It is claimed that the system of irrigation which once transformed the barren valley of the Nile into the granary of the East, supporting a population of twenty millions, besides exporting corn to all the surrounding nations, applied to the Colorado will fertilize a wider expanse of country than that reached by the waters of the Nile, with a finer climate and an equally productive soil.

There is much land in Arizona which does not require irrigation, especially that portion occupied by the Pimas Indians, who were first schooled in agriculture by the Jesuit Fathers, and who have ever since continued to gather two crops per annum.

Timber.—Though not so abundant as in many other portions of the United States, there is sufficient timber for home necessities. The river bottoms and valleys furnish mesquite, cottonwood, walnut, oak, elm, ash, &c. The mountains which give rise to the Rio Verde, the Gila, the Colorado Chiquita, and other rivers, are covered with thick forests of pine and cedar. The Black Forest, upon the head-waters of William's

Fork of the Colorado, is said to equal in extent and density the celebrated Schwartzwald, or Black Forest of Baden.

Climate.—The rainy season lasts from June to December, and snow seldom falls. Excepting upon the Lower Gila and Colorado, the climate of the entire Territory is represented as delightful. The days are not excessively warm, and the nights are refreshingly cool. Fruit-trees are in full blossom in February and March, and a great variety of temperate and semi-tropical fruits are raised in abundance.

Rivers.—The valley of the Colorado, "the Mississippi of the Pacific," was one of the earliest seats of Spanish settlement and civilization. The Indians along its whole length are now said to be friendly and peaceable. Many of them are farmers, who, by taking advantage of the annual overflow of the river, are enabled to raise crops sufficient for their subsistence with their rude husbandry and with little labor. The river has been navigated as high up as Callville by light-draught steamers, and by some is believed to be navigable for several hundred miles above; while others, professing to have examined the river's course, pronounce the Big Cañon impassable. The average width of the river as far up as Hardyville, is about half a mile, with a channel from one-eighth to one-third of a mile wide. The depth of water is from four and a half to eight feet.

Mineral Resources.—J. Ross Browne says:—

The present report indicates the discovery and location of lodes in all parts of the Territory rather than their development. The reader may wonder why lodes offering such rich surface indications, and so generally promising, have not been extensively worked. In explanation, the comparative inaccessibility of the Territory, being off the grand overland lines of travel, and without seaports, must be first offered. Next the fiendish Apache, the most difficult Indian upon the continent to overcome, and next the limited extent of the placer diggings, or the lack of water for their working. It will be remembered that it was the placers that brought the large population to California, Idaho, and Montana. Had those countries been without such inducements, their growth would probably have been as slow as that of Arizona.

After some years residence here the writer is more than ever confirmed in the belief that while there is much to contend with in Arizona, there is much to contend for, and that despite all the drawbacks and discouragements the Territory will yet command a large and prosperous population, and abundantly repay the Government for the outlay required to rescue it from the savage.

Besides the minerals already referred to, there are indications of the existence of many others in different parts of the Territory. Iron in carbonates and oxides is abundant. Traces of nickel have been found near the Big Bug Creek. Platinum (metallic) is shown in the placers of the Black Cañon or Bradshaw district, on the Agua Frio. Traces of tin exist at several points. The geologist of Lieutenant Parks's United States exploring expedition reports the discovery of large beds of gypsum upon the San Pedro. A lode of cinnabar was located several years since 10 miles southeast of La Paz, and named the Eugenia; copper, silver, and quicksilver are found together in a rare combination, but the lode is not large. Rich cinnabar float has been found upon the Mohave and Prescott road, about 50 miles from the Colorado. Lime of a superior quality exists in large quantities near Prescott and Tucson, and is found at other points. It is now extensively used in building. Lime coral exists in the Adelphi mine, Mineral Hill, Williams's Fork. It is found in immediate connection with the richest carbonates and oxides of copper. The Salt mountains near Callville, and a few miles east of the Colorado, are among the most remarkable formations in Arizona. The deposits of pure, transparent, and beautifully crystallized salt are very extensive, and no salt is superior for table or general use. In the vicinity traces of coal have been discovered, and parties engaged in exploration are quite confident that large quantities will be found. There is a report of the discovery of coal upon the San Pedro. * * *

Thus far it may be truthfully asserted that there have been more failures in superintending than in the mines in Arizona; indeed, it is a common remark that no lode properly opened and economically and systematically worked, has failed to pay. This is true in the main.

Governor McCormick says of Arizona:—

The locality of this broad area pre-supposes great metallic wealth. The mountain ranges are the prolongation of those which southward in Sonora, Chihuahua and Durango, have yielded silver by millions for centuries past, and which northward in Nevada are now amazing the world by their massive returns of the precious ores. The general direction of the mountains and the veins is

northwest and southeast, and there are numerous parallel ranges which form long valleys in the same direction. These and the broad and level bottoms of the rivers, which may be easily and cheaply irrigated by acequias or artesian wells, under which treatment the soils return an immense yield, and are independent of the seasons, produce, so far as tested, every variety of grain, grass, vegetables, fruits and flowers. While it has some barren and desolate country, no mineral region belonging to the United States, not excepting California, has, in proportion to its extent, more arable, pasture and timber lands.

* * * * * * *

The climate, considered either in its relations to health and longevity, or to agricultural and mining labor, is unrivaled in the world. Disease is unknown, and the warmest suns of the Gila and Colorado River bottoms are less oppressive and enervating than those of the Middle States. The proportion of fine weather is greater than in any other part of the world I have visited or read of.

* * * * * * *

Prescott, the capital, is in the heart of a mining district, second, in my judgment, to none upon the Pacific coast. The surface ores of thirty mines of gold, silver and copper, which I had assayed in San Francisco, were pronounced equal to any surface ores ever tested by the metallurgists, who are among the most skillful and experienced in the city, and, so far as ore has been had from a depth, it fully sustains its reputation. The veins are large and boldly defined, and the ores are of varied classes, usually such as to be readily and inexpensively worked, while the facilities for working them are of a superior order. At the ledges is an abundant supply of wood and water; near at hand are grazing and farming lands, and roads may be opened in every direction without great cost.

Some of the most promising districts in the Territory have not yet been prospected at all, and others only in a most superficial manner. It is the opinion of many that the richest mines are yet unfound, and lie eastward from Tucson and Prescott; but if one in ten of those already known yields such a return, upon the introduction of proper machinery, as is promised by the indications and tests had to this time, Arizona will far excel all other Territories of the Union in its metallic revenue.

* * * * * * *

INDIANS, &c.—The Indians of Yuma and Mojave counties are all peaceable and well-disposed to the whites. The Papagoes of Pima County, and the Pimas, Maricopas, Yavapais, Hualapais, and Moquis, of Yavapai County, are equally friendly. Those not already upon reservations will be so placed at an early day, and become a producing people. A reservation for the Colorado tribes

was designated by the last Congress. It is upon the river between La Paz and Williams's Fork, and an exceedingly fertile tract.

The Apaches alone refuse reconciliation to the whites. Their depredations have been the serious drawback to the settlement and development of the Territory. Far more than any lack of agricultural lands, of water, or of timber, has their hostile presence delayed the incoming of a large white population. By frequent and vigorous onslaughts from military and civil expeditions, their warriors have, it is believed, been reduced to *less than a thousand*. These have their retreats in the rugged mountains eastward of the Verde and the Salinas, and on the Upper Gila. Their subjugation or extermination, while a matter of some difficulty, owing to their agile movements and entire familiarity with the country, can not be a remote consummation if the present military force in the Territory is allowed to remain undisturbed in its campaign.

The Territorial Government is now fully organized in all its departments. Law and order everywhere prevail. The courts are in operation. Schools have been established in the leading settlements and the printing press is doing its part to build up society and promote substantial prosperity. A code of laws unusually thorough and complete was adopted by the Legislature. The chapter regulating the location, ownership, and development of mining lands, is pronounced the best ever devised upon the subject, and is urged for adoption in some of the older Territories. It is a guaranty to those who acquire mining interests that their rights will be carefully guarded, and it will be likely to save much of the annoying and expensive litigation hitherto common in mining countries.

In conclusion, I recommend Arizona to our discharged volunteers, and to all unemployed persons who seek a wholesome climate, and a new and broad field for energetic industry. To all who are ready to labor, and to wait even a little time for large success, it is full of promise. The day can not be distant when it will occupy a first rank among the wealthy and populous States. Its mountains and valleys teeming with cities and towns, musical with implements of mining and agriculture, its great river burdened with traffic, and its people thrifty and happy, the wonder will be that it was ever neglected by the Government, and by capitalists, as an insignificant and unpromising possession.

CORRESPONDENCE.

POST-OFFICE, PRESCOTT, A. T., *September* 5, 1868.

F. B. GODDARD, Esq., New York:—

SIR: In reply to your favor of July 14, just received, I have briefly to remark:—

The Territory of Arizona is not yet surveyed, nor can it be until the Indian difficulties are settled; consequently no lands are yet for sale. Pre-emptions to a large extent are being made by emigrants from all points—principally Germans. The lands are rich beyond precedent, and easily tilled. Larger portions of the tillable lands in different localities, especially near the rivers Colorado, Gila, and Salinas, yield two crops a year.

LABOR.—Farm hands, $50 to $75 per month, and board. Germans the best workers, and always in demand.

CLIMATE.—Country mountainous. Portions of the river bottoms unhealthy—chills and fever common. Prescott a very salubrious and delightful place—surrounded by hills and valleys—much of the latter cultivated to great profit. Small grain 8½ to 15 cents. Timber and water in abundance.

Mineral resources unlimited. Thousands of gold mines only wait development, to pay well. Half the population of Yavapai County are practical miners, and but for the Indian risks, large profits would be realized. The expense of guarding against the red murderers is very great.

The principal crop is corn, but all the small grains, including wheat, barley, oats, rye, and buckwheat, do well almost invariably. Potatoes in abundance this year, but regarded as uncertain in many locations. Price of potatoes 20 to 30 cents.

The country is new, and roads in wet season very bad. Most of the transportation is by pack animals. Wagon roads are scarce, and will be until the survey is made—when the counties will locate roads and build bridges.

SCHOOLS are hardly known in the Territory. Excepting in Prescott and Tucson, none have been kept. Not a church, and but one preacher (Chaplain BLAKE, U. S. A.) in the country. No Church and State.

The people are generally industrious, hardy frontier-men, always ready for an Indian fight. There are many Germans, Irish, English, French and Mexicans—altogether probably outnumbering Americans.

The Territory of Arizona embraces an extent equal to any three of the largest Eastern States, and with the exception of some of the Southern States, has an amount of tillable land equal if not superior to any. Will be the richest portion of the United States at no very distant day.

The building of the railroad, eastern division, 35th parallel, is looked upon as a fixed fact. The road, as located, passes some fifty miles north of Prescott, but General Palmer has recommended a branch to our beautiful and hopeful town, which will make it a large and splendid city in a few short years.

Respectfully, R. MEACHAM.

NEW MEXICO.

New Mexico is bounded north by the Territory of Colorado, east by Texas, south by Texas and Mexico, west by Arizona. It is divided into ten counties, viz.:—Bernalillo, Donna Anna, Mora, Rio Arriba, San Miguel, Santa Anna, Santa Fé, Socorro, Taos, and Valencia.

An approximate idea of the number of its present population, may be inferred from the total vote for delegate to Congress in 1867, which was 17,685.

The greater portion of the Territory is mountainous, embracing some of the largest mountain ranges in North America. There is comparatively little agricultural land as, owing to the dryness of the seasons, artificial irrigation must be resorted to, to produce crops.

This can only be accomplished by damming streams, and leading the water over the bottom lands in ditches. Where this can be successfully done, the soil is marvelously productive, especially along the valley of the Rio Grande, the largest river of the Territory. New Mexico is better adapted to stock-raising than agriculture, but will probably eventually rank higher as a mining region than for either.

The fiendish Apache roams at will over the vast arid plains and among the lonely mountain gorges of a large portion of the Territory, ever on the watch for booty and blood.

The whole Territory is healthy. Both hot and cold mineral springs abound, some of which are known to possess rare healing virtues. The Territory was ceded to the United States, by Mexico, in 1848.

We copy from Mr. A. D. Richardson's interesting work, "Beyond the Mississippi," the following respecting New Mexico:—

Leaving the trans-continental route, I turned northward from

El Paso, taking the weekly mail-coach for Santa Fé, 350 miles, fare $40, exclusive of meals. * * Soon entering New Mexico, we saw no habitation for 20 miles until we reached our adobe dinner station. A little Mexican village hard by had just been ravaged by the Apaches, who entered in broad daylight, stealing every horse and mule they could find, and unresisted by the terrified natives. * * All day, without meeting a human being, we rode among dreary wastes, with clumps of Spanish bayonet, grease-wood, faint tufts of grass, and solitary delicate flowers variegating the ashen landscape, and the wonderful mirage painting the far horizon. * * * *

Leaving the "Desert," day broke upon fleecy clouds drifting up from the valleys and half hiding the rugged peaks in floating draperies. * * * Each town, with its plaza, old Catholic church, narrow streets, and naked children, is like every other. At every ranch sheep and goats graze the hills. * * On the road beyond, farmers were treading out their wheat with horses and oxen, precisely as did the children of Israel three thousand years ago. Others were cutting corn with long, clumsy poles, and mowing grass *with sickles*. * * After spending a night at Algondes, a lonely mountain journey of a few hours brought us to Santa Fé, * * the highest town of any importance in the United States, nestling among the mountains seven thousand feet above sea-level. The overlooking peaks are white with snow. * * It is the political and business metropolis, boasting four thousand inhabitants, of whom three or four hundred were Americans. * * The old men of Mexican towns look older than any other in the world; according to a local proverb, New Mexico is so healthy that its aged inhabitants dry up and are blown away. * *

New Mexico abounds in mineral treasures, and before it was Americanized the Mexicans dug gold from its mountains to the amount of $300,000 per year. Now, most Americans are engaged in trading, but ere long a mining excitement will cause immigrants to pour in and revolutionize the country, socially and politically. * * * * * * * * * *

The few white residents of the Territory find a strange fascination in its isolation, lawlessness, and danger. Whenever I asked if they did not find it lonely, they indignantly replied that no temptation could induce them to return to their former homes. * * * * Here as in Arizona and Idaho, the Indians are always troublesome. * * The whole Desert and mountain region, from the British possessions to New Mexico, and westward to the Pacific, is one of the healthiest in the world. * * * * In such an air, lung and throat complaints have no chance. I have known persons supposed to be hopelessly consumptive, and only able to travel lying upon feather beds in

ox wagons, who, after crossing the plains and sleeping in the open air, enjoyed for years a comfortable degree of health.

Commissioner TAYLOR's Report (May 2, 1868) thus refers to New Mexico:—

MINERALS.—The results of exploration have established that gold, silver, and copper mines are as numerous and valuable as in Colorado; and also that beds of lignite coal occur around the western end of Raton Mountain, and the neighboring foot-hills of the Rocky Mountains, while a formation of early cretaceous coal has been discovered in the valley of the Rio Grande. The first coal basin consists of an immense thickness of coarse sandstones, first manifesting themselves in some of the ravines of the Raton, about 20 miles east of Raton Pass, but soon becoming visible on the flanks of the mountain, continuing through the pass, and to an unknown distance west of it. This formation lies nearly horizontally against the base of the Raton and Rocky Mountains, extending at the latter from the Arkansas River at Cañon City to the valley of the Little Cimarron on the south. In the Raton Pass the coal beds, which are quite thin in the Manco del Barro Pass, begin to assume importance. About six miles from Trinidad, a locality exhibits a total thickness of about five feet of good coal, separated into four beds, placed near together. Near the top of the pass are also beds of the same thickness, but at the southern exit of the pass, in cañons connected with the upper waters of the Canadian, there called Red River, these beds occur in still greater magnitude, being eight feet thick. All these are, however, of trifling nature compared with the great beds found in the cañon of the Vermejo valley, which show in one locality 10 feet of coal in two beds, separated by 10 inches of slate. The same strata was found on the other side of the cañon, one-half mile distant, and in other cañons several miles westward. Farther south, other thinner beds were seen near Vermejo of the thickness of three and four feet of good coal. Beyond the Pernego the high table-lands containing the coal beds disappear entirely, and the only sedimentary rock in view is the early cretaceous limestone. As the high table-land of tertiary sandstone extends north of the Raton, it is probable that similar beds exist in that direction. Coal has also been discovered on the Rio Grande in various places above Piedras Negras, as well as below in the vicinity of Laredo, Gurrero, and Roma. * * * * * * * *

Twenty miles south of the boundary line of Colorado are the Moreno mines, which attracted much attention during 1867. They are situated near, but west of, the Raton mountains, about thirty miles north of Taos, Mora County, New Mexico. Four pounds of the ore, from a well-defined quartz vein recently

opened, are said to have yielded seventy-eight cents of gold, or at the rate of $390 to the ton. An important circumstance is added, that the quartz contains only free gold, without sulphurets. In a specimen taken from the vicinity of the surface, and forwarded to Colorado, thread gold could be traced through the mass of quartz. The opportunities for gulch mining have already attracted a considerable American population. The Placer Mountain, about thirty miles from Santa Fé, within the past year has been worked under an efficient organization and with satisfactory results. The average yield of the auriferous rock is $30 to the ton. The veins are numerous, well-defined, and accessible within a district of ten miles square. Another locality of much interest is Pinos Altos, under latitude 33°, longitude 108°. The enterprise of working these mines seems to be under efficient direction. Upon one of the lodes a tunnel has already been drifted 713 feet, and when completed to the distance of 1,600 feet, will have passed from the Atlantic to the Pacific slopes of the Sierra Madre. Midway it passes under the crest of the mountain, from which a shaft of 121 feet connects the summit with the tunnel. The ore contains gold, silver, and a small proportion of copper. The village of Pinos Altos is at an elevation of 5,000 feet above the sea. The vicinity presents unusual advantages of wood, water, and surface for mining operations, and with the fullest allowance for exaggeration as to the number and richness of the lodes, there seems but little doubt that, with the pacification of the Indian tribes and further facilities of transportation, it will become an important mining center.

The foregoing seem to be the most prominent gold-bearing districts of New Mexico; but some twenty localities are mentioned by mining journals, among which are quartz veins at San José, in the Sierra Madre, intersecting each other in all directions for a mile in width and three miles in length; a similar formation near Fort Davis, Texas, and extensive placer mines on the San Francisco and Mimbres rivers.

Silver, however, with its many combinations, is the most abundant mineral of the Territory. The prominently argentiferous districts are the Placer mountains, near Santa Fé; the Organ mountains, near the Mesilla Valley; and the Sierra Madre, at Pinos Altos. The first and last of these localities are, as we have seen, gold-producing also. In the Organ mountains over fifty silver mines have been discovered, the ore being generally argentiferous galena. The district near Mesilla Valley, in the Organ Mountain, has a mean altitude of 4,400 feet, and is intersected with ravines, affording favorable opportunites for horizontal drifts in opening the veins. The country bordering on the north portion of Chihuahua is a rich silver district. Immediately adjoining the Mexican boundary are the mines of Corralitos, the

most successful silver mines in the State of Chihuahua, having been mined for forty years in a region most exposed to Indian hostility. Near the old town of El Paso tradition places the locality of one of the richest silver mines known to the Spaniards, but its site was lost during the Indian insurrection of 1680.

Copper is found in abundance throughout the country, but principally at Los Tijeras, Jemas, Abiquin, Guadelupita de Mora. Iron is equally abundant. Gypsum, both common and selenite, is found in large quantities, extensive layers of it existing in the mountains near Algodones, on the Rio Grande, and in the neighborhood of the celebrated Salinas. It is used as common lime and the crystalline or selenite is a substitute for window glass About one hundred miles southeast of Santa Fé, on the high table-land between the Rio Grande and Pecos, are some extensive salt lakes or salinas, from which the inhabitants of New Mexico are supplied.

The leading copper mines of New Mexico may be thus enumerated and described: 1. Hanover, discovered in 1860; situated on the head-waters of the Mimbres River, about six miles east of Fort Bayard; ore a virgin copper, found in extensive pockets in the bed rock, varying in quantities from one hundred to three hundred pounds, and combined with sufficient gold to defray the expenses of working. 2. Santa Rita, in the same vicinity, worked by the Spaniards nearly a century and a half ago; ore a rich oxide, and found in veins of varying thickness, the lower being virgin copper, which can be drawn under the hammer as it comes from the mine; supposed to be an extension of the Hanover. 3. Pinos Altos, associated with the extensive gold and silver formation previously mentioned; a very extensive copper deposit, and favorably situated in respect to wood and water. 4. Arroyo Honda, situated north of Taos and close to the Colorado line, from which specimens of copper have been exhibited at the United States Mint, and pronounced equal to the amygdaloid of Lake Superior. 5. Naciemento, situated about forty miles south-southwest from Santa Fé, in the Los Valles mountains, in the same range as the Placer Mountain; vein from thirty to forty feet wide, and occasionally intersected by deposits of white sandstone; assay of ore: copper, 71; silver, 4; iron, 12; unexamined scoria, 13. 6. Ocate, near Santa Fé; vein twelve to twenty feet wide, and assays sixty-four per cent. of pure copper. 7. Tijera, situated in the Tijera Cañon, near the line of the 35th parallel; surface ore alloyed with silver, but in descending the copper combines with gold. 8. New Mexico, a formation of the Placer Mountain, very extensive, and under the same administration as the gold mines in that locality. For many years much of the copper ore of New Mexico has been transported to Indianola, Texas, a distance of one thousand miles, and the amount of the gold asso-

ciated with the copper has always been sufficient to defray the expenses of transportation.

From Commissioner CAPRON Report, June, 1868:—

1. Our returns from the Territory of New Mexico embrace the counties of Mora and Valencia. Mora County reports twenty-five per cent. advance in the price of farm land since 1860. In Valencia there appears to be no settled price. If a person wants to purchase, he is asked an exorbitant price, and whoever wants to sell must sell for almost nothing.

2. The wild lands in Mora are of no value except where timber is plenty; they are chiefly mountain and prairie, good for hay and pasture only.

In Valencia, lands held by private parties fluctuate in accordance with the necessities of the holder or the wants of the purchaser. There are large tracts of land, however, subject to entry under the homestead laws, or purchase at Government prices. They are at some distance from settlements, and are visited by hostile Indians. The country is very mountainous, but has rich valleys in which almost any thing will grow to advantage, when water can be procured for irrigation.

3. Gold, silver, copper, iron, lead, cinnabar, gypsum, quicksilver, and coal abound in the districts reporting. The Moreno mines (gold) are in the northern part of Mora County, about fifty miles from the town of Mora. A company has been organized, with a capital of $100,000, to work these mines. Coal is found in great quantities in Valencia County, in addition to gold, silver, iron, lead, copper, and quicksilver, all of which may be worked to advantage as soon as the Government gives reliable and permanent protection against the Indians. The mountains are rich in timber, mostly pine and ash, with some oak, and in the valley of the Rio Grande a great deal of cottonwood is encountered.

4. The special crops in Valencia are corn and wheat; and in Mora, corn, wheat, oats, beans, and peas, the profits in the latter county being about fifty per cent., with very little labor. The farming implements used are, for the most part, a century behind the age. The plow in general use consists of a wooden pole, with a sharp iron point, and with a wooden handle to it. The thrashing of wheat is done by horses, mules, sheep, or goats, kept running over it until the wheat is thrashed out, by which process the straw gets chopped up and is left to decay.

5. Spring wheat is chiefly grown in New Mexico, because they have no fences to protect winter wheat, and the winters being very soft, the snow is very light, and remains on the ground but a short time. There are two kinds of wheat reported; one is called the New Mexico wheat, which is a dark, small grain; and

the other of lighter color, called the Sonora wheat. Some prefer the former, as heavier and more substantial; while others prefer the Sonora, because it ripens earlier and yields a whiter flour. The sowing is mostly done in Valencia in March, and the harvesting in July and August; and in Mora County it is sown from 15th of March to 1st of May, and harvested from 25th of August to 10th of November. None drilled.

6. The grasses in the Rio Grande valley are not of so much account as upon the hills and elevated plains, where there are four kinds of very rich gramma grass. There are also different kinds of herbs, upon which sheep thrive well during the different seasons of the year. On the pasture lands off from the settlements, stock can feed and remain fat all the year round, without shelter. The cost is only the wages of the herdsmen, who receive from $10 to $20 per month and rations. Indians often kill the herders, however, and drive off the stock.

7. Fruits have not received much attention in Mora County, but apples, peaches, plums, and apricots are best adapted to the climate.

GEO. W. MARTIN, Esq., Postmaster at Santa Fé, writes:—

In the vicinity of Santa Fé, the capital of New Mexico, land is very good, and can be had at low prices. The climate is healthful, and the seasons mild and delightful. Labor commands from $1 to $5, according to skill. All the useful as well as the precious metals are found in New Mexico. Gold, silver, cinnabar, iron, coal, &c. Grains of all kinds yield liberally, and there is a ready market for all products. The prevailing religion of the Territory is Roman Catholic, but Protestant churches have been established. The majority of the population of the Territory is Mexican.

UTAH.

THE history of Utah, compared with that of every other territorial organization of our Government, is strange and anomalous. More than twenty years have passed since its first settlement, and yet Utah remains a Territory, while other younger Territories have rapidly advanced in wealth and population, and assumed the rank and responsibility of State sovereignty. The peculiar religion of the original settlers of Utah—their self-imposed isolation from the outer world, and their frequent efforts to prevent social or business intercourse with those "not of the household of faith"—account for the comparatively tardy growth of Utah.

In the summer of 1846, Brigham Young, accompanied by less than two hundred Mormon pioneers, settled in the valley of Great Salt Lake. They had been driven from Illinois in the spring preceding, by the people of Nauvoo, who claimed that numerous outrages against the peace and good order of the community had been traced directly to the Mormons. These facts are mentioned as preliminary to the founding of the new settlement in Great Salt Lake Valley, the writer disclaiming any expression of opinion concerning the merits of the Nauvoo controversy.

The site of Great Salt Lake City was peculiarly adapted to the tastes and purposes of the Mormon band. It overlooked a broad and fertile valley, beyond the limits of which, on all sides, towered gigantic mountain barriers, shutting out the curious gaze of the outside world, and frowning defiance upon those who might seek to disturb the peace and quiet of these religious pilgrims. Here a new colony was founded, and for several years the Mormons were left to the enjoyment of their own peculiar faith. By patient industry, and the accession of new proselytes to their faith from abroad, the followers of

Brigham Young steadily increased and prospered. But the discovery of gold on the Pacific coast, and the consequent large emigration across the continent, brought Utah in contact with "gentile" prospecters and adventurers from all parts of the Union, and gradually the outer world came to understand and know something of the peculiarities of the "Latter Day Saints." The institution of Polygamy—a cardinal principle of Mormonism—has been condemned by the enlightened judgment of all Christendom. It seems strange that a system so repugnant to the moral and social sense of the refined and cultivated, should find so much favor with a people proverbial for their industry, their frugality, their temperance, and their general freedom from other excesses; and we doubt not the Mormons themselves will sooner or later abandon Polygamy, and yield to the irresistible influences of a worthier and purer domestic relation.

But it is not our purpose to discuss the religious or social status of the Mormons. Our only apology for referring to the matter at all, is, that we desire to present to the emigrant as full information as possible respecting the early history and peculiarities of a people whose remarkable industry and perseverance have made the solitudes of "Deseret" to glisten with golden fields, and filled her granaries with the fruits of multiplied harvests.

Utah for many years has depended almost entirely upon its agriculture. Its soil, where irrigated, is well adapted to the cultivation of the cereals, to fine fruits, and in its southern districts cotton and tobacco experiments have been quite successful. The surplus products of Utah have, until within a few years, sought a ready market in vain. Scattered over the Territory are large granaries, or warehouses, where vast quantities of produce had been collected and stored, in accordance with a church regulation of the Mormons. But the settlement of Montana, Colorado, and other mining regions within convenient distances of Salt Lake, and the rapid progress toward Utah of the Great Pacific Railroad, have created a demand for the surplusage of the "Saints," and this has to

a great extent stimulated and strengthened the industries of the Territory.

The "gentile," or anti-Mormon population of Utah, may be put down as less than five thousand. As the Pacific Railroad penetrates the Territory from its eastern and western borders, this number will doubtless be increased; but at present the principal immigration of Utah consists of proselytes to the Mormon faith, the larger majority coming from Great Britain and Ireland. Missionaries and earnest advocates of the faith, are continually laboring in foreign fields, and as a result of these efforts large bands of Mormon emigrants annually cross the ocean, traverse the great Plains, and settle in the basin of Utah. Most of these emigrants are from the humbler walks of life, but many are well educated and refined people, who find an irresistible fascination in the mysterious influences of the religion of the "Latter Day Saints."

The local authorities of Utah have hitherto discouraged all attempts to develop the mineral resources of that Territory, and gold prospecters have received neither aid nor encouragement at their hands. The Mormons desired to be left undisturbed in the enjoyment of their peculiar views, and dreaded more than all things else the influx of a population such as had overrun California and other gold-producing regions. But latterly they have exhibited a more liberal spirit, and exploring parties have been treated with courtesy and kindness.

Rich quartz lodes have been discovered in the immediate vicinity of Great Salt Lake City, and in other parts of the Territory gold is known to exist. The completion of the Pacific Railroad will undoubtedly open an inviting field in Utah for mining enterprises; and as her mountain system carries the same general features as those of California, Nevada, and Montana, it is reasonable to hope that explorations will result in the discovery of rich and profitable lodes and placers.

From a Government Report we extract the following concerning Utah:—

GENERAL FEATURES.

The boundaries of this Territory have been changed a number of times until its form approaches a rectangle. Its length from north to south is about 345 miles, and its breadth about 320 miles, with an area of about 110,000 square miles. Its population is variously estimated at from 80,000 to 100,000, and is rapidly increasing.

MOUNTAINS.—The Wasatch range of mountains divides the Territory diagonally northeast and southwest into two parts, the northwestern being much larger than that lying to the southward. The Wasatch Range is high and rugged. Its lofty summits, covered with perpetual snow, probably have an altitude of 11,000 or 12,000 feet above the level of the sea. In a broad and elevated range surrounded by countries rich in gold and silver, we should expect to find those metals. But, so far as is known, no range of mountains on the western coast has been found rich in precious metals that has a trend to the northeast and southwest, and it may be considered problematical whether any mines of those metals will be found of great richness in the Wasatch mountains. On the western side of the Territory are a number of small ranges, on the Goshoat and a number of others, that contain mines of gold and silver.

RIVERS.—The largest river is the Colorado, one of the longest in the United States. Of its capabilities for navigation comparatively little is known, though, so far as explored, the reports are unfavorable. Its principal branches are the Green, Grand, San Juan, and Virgin rivers. These drain the southeastern portion of the Territory. On the north, Goose and Holmes's creeks run into Snake River, but all the interior streams empty into lakes that have no outlet to the sea. Bear River and the Jordan empty into Salt Lake, besides many large creeks and numerous smaller ones.

SALT LAKE, &c.—Salt Lake is about 120 miles long, north and south, and 40 miles wide, and contains several islands of considerable size, some of which are partially covered with timber. A steamer is now being built for the purpose of shipping the timber from these islands for the use of Salt Lake City.

The lake is subject to sudden storms, and boat navigation is sometimes dangerous. Until the present time, no serious effort has been made to test its capabilities for navigation, but there is no doubt that the trade on this lake will, at some future period, be of considerable magnitude. The water is extremely salt. An analysis shows that it contains over 22 per cent of solid matter. It is probable the lake once had an outlet to the ocean; and from the fresh-water tertiary fossils found at Bear River, and at other

points, it is almost certain that it then contained fresh water. Then, also, it doubtless contained many varieties of fish, but as the water grew salt, they gradually perished; and, so far as has been observed, it has no animal life in it at present.

The cause of the extreme aridity of this country lies in the fact that it is surrounded by high mountains. The Sierra Nevada on the west, the Wasatch Range on the south and east, and the Rocky Mountains on the north, completely encircle it. The wind coming from any quarter has its moisture absorbed in passing over the mountains. The absence of vegetation, the effect of this extreme aridity, also aggravates the droughts. The cultivation of these valleys by covering them with crops and trees, may cause some change in the amount of rain-fall, and it is not unlikely that in the course of years the water in Salt Lake will be permanently higher than it is now. As the small rain-fall at present is due to the environment of mountains, the inference is, that in former times they did not exist, and that this lake is older than the mountains; this conclusion appears to be warranted by our present knowledge of the facts.

Utah Lake, the source of the Jordan, is almost the shape of a right-angled triangle, about 30 miles long and 20 wide. The water is fresh.

There are several other lakes, as Little Salt Lake, Sevier Lake, and Goshoat.

Trade in the Territory is more depressed than since 1850. This may cause the people to turn their attention to mining, a pursuit hitherto neglected, owing to the greater profits derived from agriculture. The favorable notice taken of the recent discoveries of the mines on the east side of Green River is evidence in point. The most potent cause of the increase of the population is the encouragement extended to emigration from foreign countries. Nearly nine-tenths of the adult population are of foreign birth.

Salt Lake City.—Salt Lake City has a population of about 19,000 inhabitants. It is a beautifully laid-out town. The streets are wide, with streams of clear water running on each side. The carriage-ways are separated from the sidewalks by rows of trees, which present a refreshing appearance in summer to the way-worn traveler who has crossed the deserts. The private houses, built chiefly of wood, are perishable, but the public edifices are constructed of stone and wood, and are durable and highly creditable to the skill and enterprise of the inhabitants. The tabernacle, the principal place of worship, is capable of seating 10,000 people. The width of the streets, the umbrageous rows of trees, the great number of orchards and gardens in the heart of the city, and the incombustible nature of the houses, give a country appearance to the city, and render fires almost

unknown. The small size of the farms is favorable to high cultivation. As a consequence, the greater part of Salt Lake Valley is under better cultivation than any other region west of the Rocky Mountains, except, perhaps, around the bay of San Francisco.

IRRIGATION.—The system of irrigation is excellent and extensive. Farmers in the Eastern States might learn much here that would be valuable to them. From a report of the Deseret Agricultural Society of January 11, 1866, it appears that "there have been constructed 277 main canals, in length amounting to 1,043 miles, 102 rods, at a mean width of 5 feet 6 inches, and a mean depth of 2 feet 2 inches, which water 153,949 acres of land at a cost of $1,766,939, and that there is in course of construction canals at an estimated cost of $900,000."

Ogden is a flourishing town on the east side of the lake, and ranks next to Salt Lake City in population and importance.

MINES AND MINING.—In the spur of the Wasatch, on the east side of Salt Lake, gold has been found in very minute quantities. Some of the quartz assayed about $2 per ton. The mountains at this point trend west of north and east of south. The country rock is granite, and quartz is abundant.

The thermal springs in this vicinity show the presence of sulphate of iron, and possibly mines of value may be found in this spur of the mountain.

MINERSVILLE.—The western part of the Territory, adjoining Nevada, so far as known, is the richest in metals. At Minersville are mines of lead and copper, which contain some gold and silver. The percentage of silver contained in the lead and copper ores of this district is sufficient to justify the conclusion that the working of these mines will be a source of profit at some future day.

RUSH VALLEY.—This district abounds in veins containing argentiferous galena and copper. When transportation is cheaper, fuel more abundant, and labor cheaper, these mines will doubtless be valuable. At present no profit is likely to be derived from working them.

COAL.—The eastern part of the Territory contains large seams of coal. As it has been found as far south as Pahranagat and at San Pete, it is not improbable it abounds in many parts of the Green River valley. That said to be from San Pete is a firm bituminous coal, considered by many superior to any found west of the Rocky Mountains, but its quality must be thoroughly proved in large amounts before it can be pronounced equal to the bituminous coal of Pennsylvania.

* * * * * *

Owing to the scarcity of fuel in the mining regions of the eastern part of Nevada and the western part of Utah, where most

of the silver , copper, and lead ores must be smelted, coal will in time be in great demand.

Anthracite.—The most interesting discovery in this connection is anthracite coal. Scientific men have long been seeking in vain to find anthracite west of the Rocky Mountains. It has recently been found on Green River. An old iron-worker from the anthracite regions of Pennsylvania says the deposit is identically the same. The coal is heavy, and will not burn with a flame. When used in a blacksmith's forge it gives an intense heat. This article has been tried, and found to answer all the purposes required of it.

Pacific Railroad.—The advantages to be derived from the construction of the Pacific Railroad will be beyond computation. Branch railroads will follow, and these coal fields will eventually be opened up. The number of coal seams visible along the cañons in eastern Utah is remarkable. Many of them are of large size; some are said to be 15 feet thick. Occasionally they can be traced four or five miles. They are so numerous and easily found that the inhabitants do not locate them. It would be difficult to imagine such an abundance of valuable coal deposits in Nevada or California as to preclude location. Utah appears to be nearly in its normal condition. The recent elevations and depressions are slight; consequently, in mining for coal, it is probable few faults will be found. The great number of veins near the surface will furnish that article for years to come without deep mining, or the use of expensive machinery for hoisting or pumping. If the coal fields on Green River should prove as extensive and of as good quality as there is reason to expect, it will be a great advantage to the miners on the Colorado and Pahranagat, as well as useful in the navigation of the Colorado River. A thorough exploration of the coal fields of Utah, Dakota, Colorado, and Montana is much needed. It would probably establish the fact that western coal fields, though inferior in quality, rival in extent the vast deposits east of the Mississippi River.

Iron.—Iron ore is abundant in Utah. Attempts have been made to smelt it, but so far without success. There is nothing refractory in this ore to render smelting difficult with skill and the proper appliances. The demand for iron will always be large in Utah, and the cost of freight from any other point of production renders it an important resource for development. With a large agricultural population, labor will be cheap. In every point of view, Utah appears to have better facilities for the production of iron than any of the adjoining States or Territories. The profit on agricultural pursuits will become less every year, for many years to come. All the adjacent mining States and Territories will soon raise their own stock and grain. With the exception of New Mexico and Arizona, they are now doing it to

a great extent, so that there will be only a home market for the produce of Utah. This will have a tendency to turn the attention of the inhabitants to mining and manufactures. In the latter branch of industry they are already actively engaged.

SALT.—Salt can be produced in unlimited quantities, both for home consumption and export. When the railroad is completed it will probably pay to transport this article to the markets of the Atlantic. In the State of Nevada salt is so cheap and abundant that it will not pay to send it west from Utah.

SODA exists in vast beds in many parts of the Territory. When labor and freight are cheaper, this will probably be an article of export.

COTTONWOOD CAÑON is about 27 miles southeast from Salt Lake City, in the Wasatch mountains. It contains several silver mines. The veins occur in limestone, and ore exists at the surface in abundance. This is a valuable lead-mining district. The ore is remarkably free from antimony.

GENERAL CONCLUSIONS.—The Territory of Utah will undoubtedly become in time an important and prosperous State. It possesses a great variety of resources. Whatever may be the opinions entertained as to the peculiar institutions existing there at present, none can deny that its population is industrious and enterprising. A people who have redeemed the deserts by a vast system of irrigation, built up cities, inaugurated an excellent school system, established manufactures of nearly all the articles necessary for the use of man, opened up roads in every direction, and supplied the miners of the adjacent Territories for several years with their products, can not fail to achieve a condition of high prosperity in the future. Contact with their neighbors, who entertain views antagonistic to their social institutions, will remedy the evils under which they now labor. As they become more intelligent, the impolicy of isolating themselves from the moral sympathies of the world will become apparent, and their patience, industry, and self-reliance will be turned to good account.

CORRESPONDENCE.

We are indebted to Judge CARTER, of Fort Bridger, for the following information respecting that portion of Utah. Our informant has for many years occupied prominent official positions on the frontier, and is well known to every trapper and mountaineer throughout the entire Rocky Mountain region:—

FORT BRIDGER, *August* 2, 1868.

We have no surveyed lands. The valleys are fertile, but not

extensive, and require irrigation, which, owing to the peculiarity of the streams, is no great labor. Usual wages are $40 per month for farm hands and general labor. Among the Mormons of Utah I am unacquainted with the price of labor, but suppose it is much less. Coal and wood are abundant. We have full crops and good prices. The Union Pacific Railroad traverses the Territory. Of school and religious advantages we have none. Population here is mostly native American, of the Uté and Shoshone tribes.

Fort Bridger is situated in the northeast part of the Territory. It was formerly a great rendezvous for trappers and traders. It is 8,000 feet above the sea. RICHARDSON describes the scenery of this vicinity as follows: "Coming from a desert dreary as Sahara, we began to view mountains that rival Switzerland, and skies of Italian beauty. The air was soft and warm, flowers abounded, and mosquitoes buzzed about us, though patches of snow were on all sides. From the ridges we looked over an immense area of green valleys, gay with flowers, bright with silver streams, and mountains of every hue, dotted with dark cedars, streaked with snow, and lost in dim fleecy clouds."

The following letter is from a leading and influential official of the Mormon church:—

SALT LAKE CITY, U. T., *July* 30, 1868.

FREDERICK B. GODDARD, Esq., New York City:—

SIR: By request of President Brigham Young, in reply to your favor of July 11, I send you the following laconic answers to your interrogations:—

1st. The farming lands of the Territory are such tracts as lie contiguous to streams, and can be irrigated by conducting water upon them by the aid of dams and canals, which is done at a cost varying from five to one hundred dollars an acre. The original title to lands is vested in the Government; and the value of the land is governed by the expense of the irrigating canals, and the amount expended in building upon, fencing, and otherwise improving it.

2d. For agricultural and ordinary day-laborers about thirty dollars per month, with board, is paid. Hands most needed are the class named.

3d. The climate is dry in summer; temperature variable; fre-

quently great change of temperature between night and day. The proximity of high mountains is the cause of the difference of temperature.

4th. Iron ore, lead, copper, zinc, sulphur, salt, and coal, have been discovered, with some prospects of silver and gold. Timber is scarce, and only found in the cañons and high on the slopes of the mountains, where it is watered by the snows, and is generally of inferior quality, and very difficult of access.

5th. Wheat, barley, oats, maize, sorghum, peas, and garden vegetables are successfully cultivated, except in grasshopper years, when every thing suffers materially; and at the time of writing it looks as though the trees and other vegetation in this city would be almost entirely destroyed by the locusts. Wheat is $2 per bushel; potatoes $1.

6th. The market has been the mines north, west, and east, five hundred miles distant; transportation by ox and mule trains.

7th. There are common schools in every ward in this city, and in all the settlements in the Territory. In this city there are also two academies and two commercial colleges. Liberal religious organizations exist in every settlement, under the auspices of bishops, counselors, and teachers of the Church of Jesus Christ of Latter-day Saints; connected with these are Sunday-schools.

8th. Majority native Americans.

Very respectfully,

GEO. A. SMITH.

PROVO CITY, UTAH CO., U. T., *August* 11, 1868.

FREDERICK B. GODDARD, ESQ:

DEAR SIR: In reply to the queries of your circular, I will briefly furnish answers so far as the valleys of Utah and Cedar, composing Utah County, are concerned.

1st. The principal farming lands are along the Utah Lake banks on the east, and on the river bottoms that make into the lake from the cañons. Bottom land in part rich, much of it injured by alkali; and as crops are raised by irrigation, canals are sometimes used to convey streams of water on the dry benches at very heavy cost, ranging from $5 to $100 per acre on the land improved. Farming land may be bought here; but settlers seeking good land, and having access to the broad lands east, west, and north, would look upon the broken patches of land in Utah County as not worth the labor expended to improve them, as most of our farmers have, in order to secure the amount of land they can farm, to buy, take up, or improve in several fields or companies; hence the land claims of Utah County do not offer any great inducements to the settler for farming.

2d. Common labor $2 to $3 per day; mechanics from $3 to $5 per day. Price of board per week from $5 to $12. As with every new country, the demand for labor is ample, provided the products or staples of the country will be received as pay, the circulation of currency being frequently very limited.

3d. The climate is quite healthful, and has its extremes as with mountainous regions generally. Winters severe. This summer has been very warm, and of late years we have had more rain.

4th. The mineral resources of the country are said to be extensive. As yet we have not discovered any thing that pays. Coal is found in Weber and San Pete counties, north and south of us, but none here. Our saw-timber grows on the mountain tops (watered by the melting snow), which can be got only by very hard labor. Some firewood is obtained in the cañons on the banks of the streams and gorges of the mountains. No timber grows in the valleys, except shrub cedar and grease-wood. Timber planting has not been commenced yet. Lumber ranges from $5 to $8 per hundred. Lime and limestone abundant, and sandstone found in the cañons; granite rock from north end of the county.

5th. Wheat is the principal crop raised. Corn, barley, and oats grow well; also potatoes. Wheat, $2 per bushel; oats, $1; barley, $1.50; potatoes, $1; butter and cheese, 30c.; beef, 7c. to 12c. per lb. Prices vary from these occasionally, with the demand and supply.

6th. Salt Lake City, a distance of fifty miles, is the nearest and *only* market for the Territory. The farmers have to haul their produce with their ox and horse teams, as we have no railroad or water conveyance, but the near approach of the Union Pacific Railroad will, it is hoped, be of much benefit to the country.

7th. Each ward or precinct has a common school, and high schools and colleges are rising in different places. Our Sunday-schools are of a high order, and much importance is attached to them, with a growing interest. The prevailing religion is the faith of the "Church of Jesus Christ of Latter-day Saints," although many in the community entertain different creeds, and the highest standard of religious freedom exists here.

8th. The majority of the people are of British descent, although community is made up of persons from almost every nation, you are no doubt aware, there is an annual immigration Europe. For a virtuous, intelligent community, Utah can surpassed. So far as agricultural and mineral resources concerned, inducements do not present themselves here; but *stock-growers* there are sections of country where men locating with the most improved kinds of stock might, I believe, do well; and where persons might locate and afterward conclude to move,

the change of location could be more easily effected, as it is our opinion that the person who desires the accumulation of wealth and establishment of an easy home, can find many places more congenial to this end, unless local affinities, social and religious, induce the settler or emigrant to halt and sojourn in these valleys, and labor among the rugged mountains for a quiet resting-place, away from the troublous scenes which will more than likely assail and increase in this and among other nations, as the political world now so clearly foreshadows.

Please excuse this hasty scribble, and accept the will to do better. With success to your enterprise, I am, yours very respectfully,

A. F. MACDONALD.

Another correspondent, writing from SALT LAKE CITY under date of August 3, 1868, says:—

* * * The character of land here, as in other places, varies from the very poorest to that which can not be excelled; but the cost of irrigation in this country is a serious tax, and many locations have had to be abandoned on account of it. * * * The price of common labor is $1.50 per day; mechanical ranges from $2 to $4. * * * St. Louis, New York, and California have supplied our market mostly, but in a few months we will be in such close proximity to these places as to reduce the tariff on transportation so much as to bring the price of merchandise to a near level with those there. * * * We inculcate and practice virtue, sobriety, industry, and other moral qualities, to a greater extent than is to be found among any other people; hence our prosperity.

COLORADO.

THE region now embraced in the territorial limits of Colorado, first attracted public attention in 1858, and was known originally as the "Pike's Peak country." The first settlers of this region were from Kansas and Missouri. Gold was found in the sands of Cherry Creek in the winter of 1858–59, but not in sufficient quantities to exempt the pioneers from many privations and sufferings during the discouraging and gloomy months of that early period.

During the summer of 1859, however, rich quartz veins were discovered in what is now known as the Gregory District, and soon after thousands of emigrants were wending their way across the Plains to the new Eldorado. As in all other gold regions, the early efforts of the miners of "Pike's Peak" were checkered with alternations of success and disappointment; but the gold yield was sufficient to encourage increased exertion, and justify the hopes of the most sanguine. Prospecting parties were diligent and untiring in their search after "lodes," and the spring of 1860 found more than a score of stamp-mills pounding away in the gulches and ravines of the Gregory District.

Explorations in other parts of the mountain range developed the existence of gold-bearing quartz veins for many miles north and south of the Gregory mines, and at several points rich placer diggings were discovered. On the head-waters of the Platte and Arkansas, over in the South Park, and throughout the entire mountain course of Clear Creek, "gulch gold" was found liberally scattered. In not a few instances handsome fortunes were realized as the result of a single summer's operations.

The early years of Colorado, were years of stormy trial and severe discipline. Outlaws and desperadoes gathered in all

the leading settlements and mining camps of the Territory, overawing the peaceful and order-loving citizens, and in many instances committing with impunity the most revolting outrages and crimes. In Denver, during 1860, lawlessness and violence prevailed to such an alarming extent that the people were compelled to organize a Vigilance Committee for self-protection. A few instances of prompt and retributive justice at the hands of these self-constituted guardians of the public peace, struck terror to the "rough" element, driving many beyond the limits of the Territory, and suddenly checking in others a spirit of turbulence and insubordination which was fast degenerating into open disregard of all moral or legal restraint.

Colorado was hardly rid of these disturbing influences when the Rebellion broke out, seriously affecting the prosperity of the Territory, because of the nearly equally divided views of the people upon the political questions which led to secession, and furnishing a new element of perplexity and trouble to the people of that region. Rebel sympathizers were active and influential, and for a short time it was a matter of serious doubt whether Colorado would remain true to the Government, or drift away into the folds of the Confederacy. But the trembling balance soon settled firmly on the side of the Union, and all through the war Colorado was intensely loyal, her brave mountaineers flocking to the Federal standard, and fighting gallantly in New Mexico, in Missouri, and at various points throughout the Union.

But despite all these discouragements and difficulties, Colorado has steadily advanced in population and wealth, her people displaying all those characteristics of intelligence, of indomitable perseverance, and of sectional pride, which are always followed by successful and profitable territorial development.

We copy from a pamphlet publication recently issued by the Board of Trade of the City of Denver, the following interesting

GENERAL DESCRIPTION OF COLORADO.

Colorado, lying within the central belt through which the emigration of the American people is flowing westward, half-way

between St. Louis and San Francisco, has an area of over one hundred thousand square miles, nearly equally divided into plains and mountains.

The plains imperceptibly slope from the base of the mountains, which rise abruptly from them, to the Missouri River; presenting a smooth undulating surface, destitute of timber, save in the valleys of the water-courses, and upon the high land, which, near the mountains, divides the waters of the Platte and Arkansas rivers.

The climate of this plateau, within the Territory of Colorado, is peculiar. Owing to its altitude, remoteness from large bodies of water, and the proximity of the great mountain range, the fall of moisture is small as compared with that of the Atlantic and Mississippi Valley States, and almost wholly confined to the winter and spring months. The summer days are hot, the thermometer often rising to 90°, *the nights always cool and dewless.* The winters are, as a rule, delightfully mild, interrupted with occasional light falls of snow, followed, by a few days only, of severe cold. The great climatic characteristic is intense sunshine and absence of moisture.

The soil of the river bottoms is identical in fertility and depth with that of the Missouri, and yields, generally without irrigation, immense crops of small grain, hay, and such vegetables as are produced in the same latitude at the East. The uplands have a rich, warm, sandy loam, which produces, wherever irrigation is possible, even more abundantly than the bottoms, and are everywhere covered with buffalo and gramma grasses, affording nutritious feed for stock, which run at large, and *grow fat without fodder throughout the entire year.*

The innumerable herds of buffalo, elk, antelope and deer, which have from time immemorial subsisted by pasturage alone, on these plains, suggest that they will not only be capable of furnishing the stock and wool needed for a dense population within the Territory, but also for a large portion of the people of the Continent.

Spring opens one month earlier here than in the same latitude at the East. Seed is sown in February and March. Teams, subsisting on grass alone, are able to leave the base of the mountains for the east—and carrying, as it were the grass with them, reach the Missouri River at the earliest period at which it is possible to travel westward. In short, vegetation germinates earlier on the Great Plains, measurably in ratio to the increase of longitude.

Fruit-trees, when planted upon the uplands and irrigated, live and grow finely. The soil and climate are identical with those of the Salt Lake basin, which is—with the exception, perhaps, of certain portions of California—the best fruit-producing region in America, and there is every reason to believe that in time Colorado will in this particular rival her sister Territory.

Black walnut, chestnut, and other American forest-trees grow readily from the seed.

Colorado has richer and more extensive mineral deposits than California, and grazing lands as valuable as those of Texas. She has the peculiar excellencies of both these favored States, with the advantages of easier access and a nearer market.

The climatic conditions are exceedingly favorable to consumptives, who are not in the confirmed stage of the disease; to all asthmatic sufferers, and to those having chronic bronchitis. *To the latter two it affords instantaneous relief*, and rapid and permanent cure.

There is literally no disease peculiar to any portion of the Territory, and invalids from abroad rarely fail to rapidly improve under the tonic influences of the climate.

Both to the invalid and voluptuary, the contour of surface affords great facility for choice of temperature and density of atmosphere. A ride of two hours over the plains, always hard and smooth, and six hours of mountain travel, either by private conveyance or the six-horse coach, over roads pronounced the best of the kind in the world, and through the grandest of scenery, carries one from the summer heat of the valley, through the intermediate grades of climate to an altitude where an overcoat is a comfort by day, and a blazing fire a necessity by night. Good inns are found on all the roads, and settlements with public and private homes, having the refinements as well as the comforts of life, hang upon the mountains ten thousand feet above the level of the sea.

Within convenient distance of the mountain settlements, cool streams fresh from the snow, half-hidden by flowering shrubs and filled with trout, ripple and foam, and silvery lakes reflect the snow-capped mountains overhanging them.

Coal.—The coal fields of Colorado, north of the Arkansas River, have an area of five thousand square miles. The veins vary from five to thirteen feet in thickness, and in places, as on the South Boulder Creek, twenty-three miles from Denver, eleven, overlying each other, are exposed to view, aggregating from thirty to fifty feet of solid coal. Professor F. V. Hayden, U. S. Geologist, in his report to the Commissioner of the General Land Office, writes of this locality, as follows: "I spent two evenings at Mr. Marshall's house burning this fuel in a furnace, and it seemed to me that it would prove to be superior to ordinary western bituminous coal, and ranks next to anthracite for domestic purposes. It is as neat as anthracite, leaving no stain on the fingers. It produces no offensive gas or odor, and is thus superior in a sanitary point of view, and when brought into general use will be a great favorite for culinary purposes. It contains no destructive elements, leaves very little ashes, no

clinkers, and produces no more erosive effect on stoves, grates, or steam-boilers than dry wood."

IRON.—Iron ore (Brown Hemalite), which yields seventy per cent. of metallic iron, is in close position to the coal fields above mentioned, and the area over which it seems to abound, can not be less than fifty square miles. Indications of large deposits have been found along the line of the Union Pacific Railroad, and the beds appearing on the Divide—so called—forty miles south-eastward from Denver, are only less remarkable in quantity and richness than the celebrated "Iron Mountain" of Missouri.

Recent experiments show that the mineral fuel can be made useful for smelting purposes, and it is impossible to doubt that Colorado will exert the same influences over the development of the Great Central Region that Pennsylvania does over the contiguous States.

MOUNTAIN REGIONS.—The mountains stretch from north to south across the Territory, a distance of two hundred and forty miles. The average height is twelve thousand feet, though many of the peaks rise from two thousand to five thousand feet higher. The foot-hills flank the range on either hand to a distance of fifty miles; to the eastward subsiding into the plains; to the westward sloping to the base of other and continuous ranges of lesser height which fill the space thence to the Pacific. This majestic range holds within its folds the North, South, Middle and San Luis Parks, immense areas of level land—surrounded by snowy mountains—each having a soil, climate, and geological formation peculiar and distinctive.

The Platte, Arkansas and Rio Grande rivers, flowing westward to the Atlantic, and the Colorado of the West, which pours its flood into the Pacific, take their rise in this range, and from opposite sides of one of its lofty peaks. The climate varies, of course, with the altitude, and is cooler both in summer and winter than that of the plains, yet the mines above the town of Montgomery, at the head of the South Park, at an altitude of twelve thousand feet above the level of the sea, are worked in winter without serious inconvenience.

The feature which first attracts attention is the extreme fertility of the valleys and slopes of the mountains. Where not shaded by pine forests, luxuriant grasses enameled with flowers, cover the ground as with a carpet, and the entire region affords summer pasturage, especially for sheep, superior in quality and equal in quantity to any other similar extent of wild land in the world.

On the western slope the timber is more dense and vigorous, and wild timothy and clover are added to the other grasses. In the Middle Park, hot sulphur springs of great capacity, possessing valuable medicinal qualities, abound; also thick veins of coal resembling Albertine.

Grain and vegetables are raised without irrigation, at an altitude of eight thousand feet, the rains produced by the evaporation of the snow, which usually expend their force before reaching the plains, affording sufficient moisture.

The timber line is about eleven thousand feet high, much higher than on other mountains in the same latitude; an apparent deviation from physical laws, which is explained by the great extent and general altitude of the inland plateau, of which this range is the crest, and which also accounts for the mildness of the winters, which, from the altitude of the country, would else be of more than Alpine severity.

This mountain region contains mines of gold, silver, copper, and lead, which are destined, under the influence of capital and cheap labor, to give to the American people for all time, the monetary supremacy of the commercial world.

The mineral belt extends the whole length of the range, and includes thirty miles of each of its flanks, making an aggregate of fourteen thousand square miles of mineral land. In the two counties of Gilpin and Clear Creek, alone, not less than twelve thousand distinct lodes have been discovered and recorded, and it is safe to say that of this number there are not less than one hundred capable of annually yielding, under favorable circumstances, such as the completion of projected railroads will secure, $500,000 each, a total of $50,000,000.

COUNTIES.

ARAPAHOE COUNTY contains the city of Denver, the commercial and political capital of the Territory. The South Platte River runs across its western front, a distance of thirty miles, affording an abundance of water for irrigating and manufacturing purposes. The population is about seven thousand, and the valuation of taxable property in 1857 was $4,630,693.

The Platte Water Company's canal, twenty-four miles long, lately completed at a cost of $100,000, supplies Denver with water for domestic purposes, and will irrigate thousands of acres of land in this and adjoining counties, with a capacity for indefinite extension and measure of usefulness. The area of land within the county actually under cultivation is estimated at 10,000 acres. The log cabin of the pioneer settler has given place to the modern farm-house, with its surroundings, and great attention is being paid to all kinds of fruit.

For want of an irrigating canal, farming has to this time been restricted to the river bottoms, but the completion of the irrigating works above mentioned, opens an almost unlimited area for cultivation.

To demonstrate the fertility of the soil, it only remains to state, that sixty bushels of wheat, sixty-six bushels of barley, sixty-five bushels of oats, and four tons of hay to the acre have been raised.

DENVER is beautifully situated, on a plain, at the junction of Cherry Creek with the South Platte, twelve miles from the foot of the mountains, with an altitude of five thousand feet above tide level. The population is about six thousand. Men from the East gaze with astonishment on this compactly built, busy settlement, with the peculiarities to the full of a large city, standing in the "*Great American Desert*," seven hundred miles from what has hitherto been supposed the *ultima thule* of inhabitable land on the Atlantic slope of the United States.

Among the public buildings there are six churches, several of them imposing brick structures, belonging to the Episcopal, Methodist, Baptist, Presbyterian, Congregational, and Catholic societies respectively; two free, and several select, schools. It is connected with the East, with Central City and Georgetown by telegraph lines, and is shortly to have the same communication with Santa Fé, New Mexico.

There are two first-class flouring mills, run by water, capable of making several hundred sacks of flour per day; two planing mills, sash and door factories, gunsmiths' and jewelry shops, cabinet manufacturers, upholsterers, &c.

There are three daily papers, having also weekly editions, and one weekly paper; three first-class and many second-class hotels; three bridges spanning the Platte, costly and permanent structures, and two over Cherry Creek, erected at a cost of $16,000; two theaters, two public halls, and the United States Branch Mint buildings.

Six lines of coaches leave every day for the termini of the railroads for Santa Fé and the various mining towns in the mountains. The view from Denver and vicinity is grand. Pike's and Long's peaks, with over two hundred miles of the Snowy Range, are plainly visible, and seen through the clear mountain air, the passing clouds shading in rapid succession and infinite variety their seamed and broken surfaces, present a panorama which beggars description, and is pronounced by all travelers unequaled elsewhere in the world.

DOUGLAS COUNTY adjoins Arapahoe on the south. The remarks on the characteristics of the great Plains apply to all of this county, except the extreme western border, which is described in the preceding paragraph. The population is about fifteen hundred, who are principally employed in the manufacture of lumber. The proposed line of the extension of the Union Pacific R. R., E. D. to Denver, bisects this county its entire length, and the road, when built, will open an extensive market for its lumber and coal.

GILPIN COUNTY is the most famous, as it is the best developed, of the mountain counties. Black Hawk and Central City have a population of about seven thousand souls, dwelling upon the narrow banks of an affluent of Clear Creek.

The two towns may be classed as one, for the line of separation is only imaginary. There are two banks, two newspapers, several fine churches, and many fine brick and stone buildings.

One hundred mining companies have been formed in the eastern cities on lodes within a radius of two miles of Central City. Their improvements sum up as follows: Sixty-five stamp mills, containing twelve hundred and ten stamps in running order; eight mills, containing three hundred and ninety stamps on the ground; and at Atchison, Kansas, not erected, twenty-six mills, with reducing works other than stamps, most of them magnificent structures; one hundred and eighty-one engines, with an aggregate of forty-five hundred horse power; fourteen mine pumps, ranging in size from four to ten inches; engine, shaft, and whim houses; whims and windlasses without number; and on five of the principal lodes, shafts aggregating in depth twenty thousand feet, with levels and inclines amounting to as much more. These lodes have been opened lineally on an aggregate of twelve thousand seven hundred feet, and during the past year the banks of Central have shipped east $1,200,000 worth of gold.

CLEAR CREEK COUNTY is only less famous than Gilpin because less developed. It has numerous and rich gold mines, and the silver lodes discovered upon the main range within the last two years, and only now partially explored, are so rich, numerous, and extensive, that alone they would make Colorado a great mining country.

These ores are so rich that they have been transported to the Atlantic shore, and there reduced at a profit. Under practical treatment the yield has been $1,000 to the ton, and it is impossible to doubt that Clear Creek will give Colorado a greater prominence as a silver than a gold-producing region.

Georgetown, the principal settlement, having a population of two thousand is situated upon the stream from which the county is named, directly at the base of the range. It has been built within the last two years, is a brisk, thriving place, and promises to be the main depot in the mountains for distribution of supplies. The water-power which can be obtained from the creek is great, and there is a sufficient area of level ground to comfortably accommodate a large resident population. The town supports one newspaper and several hotels.

PARK COUNTY lies north of Fremont, and east of Douglas and El Paso counties, and contains within its limits the South Park, a wonderful plateau, entirely surrounded by mountains, about ninety miles in length, with an average width of thirty miles. The Park

is traversed its entire length by the South Platte River and its numerous tributaries, which rises in the Snowy Range at the head of the Park.

It contains the mining towns of Montgomery, Buckskin, Sterling (Mosquito District), Fairplay, Tarryall, and Hamilton. Large amounts of gold have been taken from the gulch or placer mines of Fairplay, Tarryall, and Hamilton, and they are being successfully worked the present season. The quartz lodes of Mosquito, Buckskin, and Montgomery, equal in richness those of Gilpin and Clear Creek, but have not been as extensively worked.

LAKE COUNTY is situated west of the counties of Park and Fremont, and extends to the line of Utah, on the west. California and Colorado gulches and Cash Creek in this county, contain some of the richest gulch or placer mines in the Territory, and continue to yield liberal returns for labor, and in largely increased amounts.

The lodes of gold-bearing quartz discovered in this county are of unsurpassed richness, and remarkable in extent and variety. The ores generally contain free gold which can be saved without difficulty by the simplest process, thus relieving the miner from all the difficulties encountered in working the rich but refractory ores of other portions of the Territory. The difficulty of access, together with the attractions of other parts of the Territory, has heretofore retarded the development of this county, but the means of access are no longer difficult, and a large immigration is now pouring in, and developing its resources.

SUMMIT COUNTY constitutes about one-fifth of the Territory of Colorado, and is larger than the State of Massachusetts. It lies west of the Snowy Range and north of Lake County, and contains the celebrated Middle Park.

The gulch mines in the vicinity of Breckinridge and upon the tributaries of the Blue River, have been successfully worked since 1859, and in 1867 yielded as much gold as in any previous year. Experienced miners assert that as a gulch or placer mining country, Colorado will successfully rival California and Montana. Gold and silver lodes have been discovered, and worked, of great richness, and have yielded liberal returns. This is especially true of silver mining, to which capital and labor are now directed, with promises of satisfactory results. The silver lodes of Summit County promise to place her among the first of silver-mining regions.

JEFFERSON COUNTY adjoins Arapahoe, and includes within its limits agricultural and mineral lands, the mountains and the plains, and the fertile valley of Clear Creek, one of the richest in the Territory. Golden City is the county seat, and is located upon Clear Creek, where that stream leaves the mountains. The immediate vicinity of Golden City is rich in deposits of coal and iron. There are six coal mines opened and worked. The deposits of

fire-clay are of great value, and an extensive manufactory of pottery, tiles, fire-brick, &c., is in successful operation. Golden City contains three flouring mills, and other evidences of prosperity.

BOULDER COUNTY is divided into two equal parts; the western half commencing at the foot-hills and extending to the Snowy Range, and contains some of the richest gold and silver-bearing lodes in the Territory. The discovery of the richest of these lodes is of recent date, and the work of development has just commenced.

Mills and reducing works are being erected, and every indication promises rich results. The abundance of wood, timber, and water, renders this region very attractive and desirable. The eastern half of Boulder County extends from the foot-hills easterly fifteen miles along the valleys of North and South Boulder, Left Hand, and Saint Vrain, with their tributaries, forming the most densely populated and well cultivated farming region in Colorado.

This whole region, along the base of the mountains, is filled with extensive veins of coal and iron. Some of these veins have been extensively worked, and supply the city of Denver and the surrounding country with coal of an excellent quality.

LARIMIE COUNTY adjoins Boulder on the north, and is divided into agricultural and mining lands; the latter have not been developed to any extent. Its agricultural lands are similar to those of Boulder County, and are traversed by the Cache a la Poudre, Big and Little Thompson creeks. Its population is estimated at eight hundred.

SOUTHERN COLORADO

Embraces all that portion of territory lying south of the "Divide" or separating ridge between the waters of the Platte and Arkansas rivers, and includes the counties of El Paso, Fremont, Pueblo, Huerfano, Las Animas, Costilla, Conejos, and Saguache, the first five named lying in the valley of the Arkansas, and the last three in the valley of the Rio Grande Del Norte.

All that portion lying south of the Arkansas River is what originally belonged to Mexico, and in the organization of Colorado Territory was taken from New Mexico. It is mostly covered by Spanish grants, and a portion of which has been settled many years. Irrigation is an essential part of farming, and the labor is mostly performed by Mexicans. Very few farms are fenced, the necessity being obviated by the laws requiring stock to be herded during the growing season.

EL PASO COUNTY.—This county extends from the timber lands on the "Divide," southward about fifty miles, and includes the beautiful valley of the Fountain Qui Bouille and its tributaries. The eastern portion of the county is on the "plains," and the west-

ern portion includes the far-famed "Pike's Peak" and the mountains flanking its base.

Colorado City, the county seat, is situated at the foot of Pike's Peak, almost under the shadow of its gigantic dome, like a villa at the foot of the Swiss Alps. Here are the famous "Soda Springs," boiling springs, from which the stream takes its name. Here also are the wonderful porphyritic rocks called the "Garden of the Gods." Fossils and petrifications of great size, beauty, and interest, are found in immense quantities. Colorado City contains two flouring mills, a good school, and churches.

FREMONT COUNTY.—This county lies southwest of Pike's Peak, and the larger part is mountainous. It is bisected, east and west, by the Arkansas River, the valley of which is here narrow, and the arable lands are somewhat limited. The county is well timbered, contains inexhaustible beds of coal, and quarries of limestone, freestone, granite, marble, gypsum, and other minerals.

Cañon City is the county seat, and is located on the Arkansas River, at the point where that river emerges from the mountains through a stupendous rocky cañon. The Territorial penitentiary is located here.

PUEBLO COUNTY.—This county is situated in the heart of the Arkansas Valley, and contains the largest amount of farming land of any county in the Territory. It extends from the east line of Fremont County to the eastern boundary line of the Territory, being about one hundred miles in length and fifty in width. It is bisected longitudinally by the Arkansas River, and includes all the Lower Huerfano, from Captain Craig's ranche to the mouth, all of the Rio San Carlos and Greenhorn valleys, and about twenty-five miles in length of the Lower Fountain Qui Bouille. Forts Reynolds and Lyon, two permanent military posts, are in this county.

In a distance of twenty miles on the Lower Huerfano are only seven ranches, each ranche being from three to five miles square, and each having a population of from fifty to two hundred, mostly Mexican laborers and tenants.

Pueblo is the county seat, and contains a population of about five hundred, and is the center of business and trade for Southern Colorado, this trade amounting to over $300,000 during the last year. There are good schools. The Methodist, Episcopalians, and Baptists have churches.

HUERFANO COUNTY.—This county includes the Upper Huerfano and its branches, the Apache and the Cucharas. It is a fine agricultural and pastoral region, well timbered, extending into the mountains, and abounding with stone and coal. Gold, silver, and copper have also been found. The famous Wa-ha-to-yas, or Spanish Peaks, are in the southwest corner of this county; at the foot of them is the beautiful valley of the Cucharas. Colonel Francisco

has the largest ranche in the Territory, it being thirteen miles in length along the valley, and five miles in width.

LAS ANIMAS COUNTY.—This county, with the counties of Conejos and Saguache, form the San Luis Park, a vast elevated basin in the mountains, formed by the valley of the Rio Grande del Norte. This county is bounded on the south by the line of New Mexico, west by the Rio Grande, and east and north by the mountains.

Fort Garland, near the site of the old Fort Massachusetts, is a military post in the northern part of the county, late commanded by the famous Colonel Kit Carson. The county is finely adapted to agriculture and stock-raising. Wheat, oats, and potatoes are the principal products. Gold, silver, copper, iron, and other minerals are found in the mountains, east and north, and in many places there are indications of these mines having been worked years ago by the Spanish. Population nearly two thousand, mostly Spanish.

CONEJOS COUNTY.—This county lies on the west side of the Rio Grande, and is watered by the Rio de los Conejos and the Rio San Antoine. The population is about fifteen hundred, mostly Spanish. The county seat is Gaudaloupe, and also the location of the Uté agency, and one of a dozen or more small towns or Mexican plazas along the Conejos.

SAGUACHE COUNTY is in the upper and northwestern end of the San Luis Valley, and on both sides of the Rio Grande. The population is about two hundred and fifty, mostly American. The principal settlement is a German colony under the lead of Captain Kerber. The county contains fine tracts of land, and is mostly public domain, and open for pre-emption and settlement. Recent discoveries of gold in this county are attracting much attention.

All the three last-named counties are perhaps better watered than other arable portions of the Territory, and offer great inducements to immigration. The climate is rather too cold for corn, but wheat, oats, barley, potatoes and other vegetables, are raised to perfection. Sheep and cattle are raised and herded in vast numbers, the streams are filled with brook and salmon trout, and the mountains furnish game in great plenty, while a greater number and variety of water-fowl are to be found along the Rio Grande than in any other part of the Territory. The scenery of this valley is as beautiful as can be found in America, and the region is of historic interest, having furnished the scenes of many a border romance, and is the theater of the classic age of the trapper life of Kit Carson and his compeers, most of whom now sleep beside their hatchets, beneath the turf of this once "happy hunting-ground."

GENERAL REMARKS.

The Pacific Railroad, Eastern Division, has surveyed a branch road deflecting at a point about one hundred miles east of Denver, so as to strike the Arkansas River at the mouth of the Las Animas, or Huerfano, and thence direct through Southern Colorado to Santa Fé and Arizona, to the Pacific. The time is not distant when a railroad will run parallel with the mountains, at their base, from Denver, *via* Santa Fé, to Mexico. Coal fields skirt the base of the mountains from the northern border of Colorado to Trinidad. Few efforts have as yet been made to cultivate fruit, but of the adaptation of the climate to fruit culture there can be no doubt. Currants, plums, raspberries, and grapes, grow spontaneously in immense quantities. A superior quality of native wine is made from the wild grape, and the dryness of the atmosphere prevents the liability to mildew. Pueblo County alone manufactured last year from the wild grape, over one hundred barrels of native wine.

The following summary of the products of the southern counties exhibits the resources of that portion of the Territory, and is as near correct as can be obtained. The data for the products of the northern counties was not attainable except by rough estimate, and it is not therefore presented, but will probably nearly equal that of the southern counties:—

SUMMARY OF PRODUCTIONS.

Counties.	Corn, bush.	Wheat, bush.	Cattle, hd.	Sheep, hd.	Hogs.
El Paso	15,000	10,000	2,000	1,000	500
Fremont	10,000	11,900	1,000	500	250
Pueblo	500,000	100,000	10,000	20,000	1,000
Huerfano	100,000	50,000	4,000	5,000	500
Las Animas	50,000	100,000	8,000	15,000	500
Costilla		20,000	5,000	20,000	
Conejos		15,000	2,000	10,000	
Saguache		5,000	500	1,000	
Total	675,000	311,900	34,500	72,500	2,750

The United States Land Office, located at Denver, furnishes the following as the amount of land entered at that office during the year 1867, viz.:—

M. B. Land Warrants, Acts of 1847, 1850, 1855	46,206 acres.
Cash Series	9,545 "
Homestead Entries, Act May 20, 1862	11,603 "
Filings made and settled upon, about	70,000 "
Total	137,454 acres.

(Signed) E. C. HOLMES, Register.

There are two other land offices in the Territory, from which no report has been received.

PRICES OF PROVISIONS AND LIVING.—Bacon, hams, and sides, 25c.; lard, 25c.; butter, 65c.; coffee, 35c.; corn, 4c.; meal, 5c.;

flour, $6 to $9 per 100 pounds; potatoes, 3c.; sugar, 25c.; sirup molasses, $2 to $2.75 per gallon; teas, $2 to $2.50; beef, 12½ to 20c.; board, per week, from $5 to $10.

PRICES OF LABOR.—Ordinary farm hands obtain from thirty to sixty dollars per month. Mechanics from five to eight dollars per day. Servant girls from seven to ten dollars per week, and all classes of labor is in good demand.

ROUTES OF TRAVEL.—The Chicago and Northwestern Railroad from Chicago to Omaha, connects with the Union Pacific Railroad at that point. A daily line of packets runs from St. Louis to St. Joseph. The Union Pacific Railroad is completed to the Rocky Mountains. The Denver Pacific Railway will connect with that road at Cheyenne. Daily stages now run from Cheyenne to Denver. The Union Pacific Railroad, Eastern Division, is completed to Antelope—200 miles east of Denver, and is being rapidly constructed toward Denver. This road connects at Kansas City with the Missouri Pacific Railroad, the Hannibal and St. Joseph Railroad, and the North Missouri Railroad, and the packets upon the Missouri River, affording prompt connections with Chicago and St. Louis. The United States Express Company run regular daily coaches from the end of the road to Denver. The Nye Forwarding Company advertise that they have over two hundred teams, and connect with the great Union Pacific Railroad, Eastern Division, at its western terminus, *via* Smoky Hill route, thus forming a direct and reliable line of transportation from St. Louis, Philadelphia, Pittsburg, New York, Boston, Cincinnati, Chicago, and all points east, through to Denver City, Colorado.

The Denver and Santa Fé Stage and Express Company run a tri-weekly line of coaches from Denver to Santa Fé, through all the principal towns of Southern Colorado, and to the new mines on the Cimarron.

CORRESPONDENCE.

PUEBLO, COLORADO, *August* 25, 1868.

F. B. GODDARD, Esq.:—

DEAR SIR: Yours of July 17, to Dr. Waggoner, has been handed me, with request to answer.

1st. In Colorado, all agriculture is produced by irrigation.—True, we have rains—sometimes sufficient to grow the crops. But no one will attempt to farm without first being assured of water in the ditch.

Farming lands can be had, and are cheap in this county, in proportion to what they yield, and compared with lands East.

2d. Labor.—Workmen are not plenty. Farm hands get from

$35 to $50 per month and board. We are well supplied with mechanics. Their wages range from $4 to $6 per day.

3d. Climate and healthfulness, excellent. The Arkansas Valley is unsurpassed. We have the cool, pure, mountain atmosphere. Winters are mild.

4th. All kinds of grains and vegetables are produced, easily and abundantly. Wheat, oats, corn, &c., are fine.

5th. Market. No established market. Home consumption, supplying mines, military, &c., &c. Transportation all done by different kinds of teams, and cheap.

6th. Schools and churches have been scarce, but are becoming fairly started.

7th. Our people come mostly from the Northern States: Missouri, Iowa, Indiana, Illinois, Ohio, and so on east. We have a fair share of foreigners.

This text which I have hastily given you, is substantially correct. We have a good county—unsurpassed for cattle and stock-growing. All kinds of stock are higher than East. Cattle feed well the year round on the prairies, and do well.

Yours respectfully, U. B. HOLLOWAY.

DENVER, *July* 29, 1868.

FRED. B. GODDARD: In compliance with your request, I send you the information you seek, in a report of the Board of Trade, prepared from statistics obtained from various sources. It contains the answers to all the questions propounded—with a few exceptions. I would state that the rains of the present summer have been as seasonable as in the States, and very good crops could have been made from the bottom lands of Platte, Cherry Creek, Clear Creek, Bear Creek, Ralston, and Boulder creeks, without irrigation

The present growing crops of *Spring Wheat* (which is the only kind of wheat raised in Colorado), oats, barley, potatoes, cabbages, and vegetables of every description can not be surpassed in any country (having resided twenty-one years in Western Missouri, I know what I am saying).

Young potatoes can be bought for 1½ to 2 cents per pound at the present time, and wheat can not bring more than 2 cents per pound, which is lower than at any time since the Territory was settled.

The farming lands near Denver are owned by those who are occupying them, and a great deal of land on the elevated parts, between Denver, thirteen miles from the base of the mountains, and Golden City, the first mining town as you enter the mountains, has been pre-empted, and a considerable portion is now in cultivation—irrigated from Clear Creek, a mountain stream pass-

ing by Golden City, and emptying into the Platte four miles northwest of Denver. As to the value of lands, I am unable to give you much information—the value depending, to a great degree, upon the facility for irrigation and the improvements thereon.

All of which is respectfully submitted,

R. G. BUCKINGHAM.

GOLDEN CITY, COLORADO, *August* 9, 1868.

Mr. F. B. GODDARD:—

SIR: I have been requested by Mr. Danforth, our postmaster, to answer your questions. I will do so to the best of my ability.

1st. Farming land varies in price in consequence of the improvements upon them, of fencing, irrigating ditches, facilities for water, and the buildings. The price of unimproved land is from $1.25 to $2.50 per acre; improved, from $5 to $50 per acre.

2d. Labor is rather scarce, especially farm laborers. Wages are, for farms, from $40 per month to $2 per day; for miners, from $3 to $4.50 per day.

3d. Climate is dry, wholesome, and temperate; our great altitude deprives us of dew and fogs in summer, but gives us open, dry winters; snow-fall is but light all winter until March and April, then heavy snows, occasionally three feet deep, are of common occurrence, and although of short duration, yet no damage of frost is apparent to crops or grass from the snow.

4th. Corn is not a general staple—wheat, rye, oats, barley, and potatoes are raised everywhere, from 7,700 feet above the sea to the lowest valleys—vegetables are excellent. Wheat is worth from 4 to 8 cents per pound; oats, 5 cents; rye is worth 4 to 7 cents; potatoes, 3 cents; barley, 5 to 8 cents.

5th. Our best market is the mining region; the next best is Dakota and Wyoming Territories.

6th. Schools are excellent; churches everywhere.

7th. Nationality, mostly, New York, Ohio, Pennsylvania, Indiana, Minnesota, Illinois, Iowa, Missouri, and Kansas—many foreigners.

Yours,

E. W. BERTHOUD, A. M.,

Acting Supt. Public Instruction, Col. Ter.

WYOMING.

THE new Territory of Wyoming was organized in the summer of the present year (1868). It is bounded as follows: on the north by Montana; on the south by Colorado; on the east by Dakota and Nebraska; and on the west by Idaho and Utah. It lies between the 41st and 45th parallels of latitude, and embraces about one-third of what formerly constituted the Territory of Colorado. The Black Hills pierce the center of the Territory from its southern limits, and the Rocky, Medicine Bow, and Uintah mountains form a part of its southern and western boundaries. Portions of Nebraska and Dakota were appropriated in the construction of Wyoming.

The name of "Lincoln" was first proposed for this new Territory, in honor of our martyred President, but "Wyoming" (from the Indian *Maughwauwame*, signifying "large plains,") was finally adopted. It is a euphonious name, and appropriate to the Territory in its significance.

The rapid advancement of the Pacific Railroad, and the magical growth of towns and cities along its route, were the chief impulses to this new territorial organization. The city of Cheyenne, situated near the foot of the Black Hills, boasts a population of 4,000. Eighteen months ago its site was a wilderness, the home of the coyote and prairie-dog—now its thronged streets and crowded warehouses exhibit all the characteristics of rapid commercial advancement and prosperity. Numerous banking houses, several large hotels, two or three daily newspapers, and every trade and profession find a profitable field for enterprise.

The topography of Wyoming may be described as an extensive rolling plain, broken at intervals by lofty mountain ranges, which stretch across the Territory in several directions. The Wind River chain starts from the western bound-

ary, and penetrates nearly half the distance to its eastern limits. These ranges are flanked on either side by vast tables and plains, some of them well watered, and nearly all covered with a luxuriant growth of the most nutritious grasses. The vicinity of Bridger's Pass, and the valley of Bitter Creek, are exceptions to the general fertility of the Territory. Here dearth and desolation reign supreme. The hills and mountains are covered with ashes and scoriæ, and all around are the grand and gloomy evidences of the volcanic disturbances which at some former period devastated and wasted this region. Even the sage brush, capable of a thrifty growth in the sands of the "Desert," here struggles for a sickly existence.

Soil.—A very large portion of Wyoming must be susceptible of profitable cultivation and development. The Laramie Plains, immediately west of the Black Hills are as ready to-day for the plow and the spade as the fertile prairies of Illinois. The soil is excellent, consisting of a sandy loam, and grass grows most luxuriantly. In some districts there are numerous streams, while in others there is at times a scarcity of water. But the rains are frequent and opportune, and as a grazing region this Territory presents most favorable advantages.

Minerals.—In the Sweetwater Valley, and along the sources of Wind River, important discoveries of gold have been made, and rumors are current of immense yields obtained by a party of miners who carefully sought to conceal from the public the large product of a single winter's operations. It is well known, however, that rich ledges of the precious metals exist in the vicinity of the South Pass; and without doubt, another twelvemonth will develop sufficient to establish the claim of Wyoming to rank among the great gold-producing regions of the Rocky Mountain range.

The districts where gold has been found are within twenty-five miles of the Pacific Railroad, and are easily accessible at all seasons.

Immense coal and iron beds have been discovered in close proximity to the Pacific Railroad, and lime and gypsum are abundant. Lead and copper also exist, and certain portions

of the Territory are rich in oil springs. Numerous salt spri have been discovered, some of which have been worl profitably.

TIMBER.—The supply of timber in Wyoming, especia along its southern boundary, is inexhaustible. The Bl Hills—so called from the density of their foliage of ev greens, which at a distance present almost an inky appeara —are covered with pine, spruce, and hemlock, while the Me cine Bow, Elk, and Uintah mountains, are feathered almost their summits with the pine, the spruce, and the cedar. T Big and Little Laramie, and the Medicine Bow and No Platte rivers, at high stages of water, afford excellent fac ties for rafting lumber to the interior and sparsely timbe portions of the Territory.

The climate of Wyoming is almost unsurpassed for sa brity and healthfulness. The winters are mild and op and in many parts stock feed and fatten upon the stand grasses, requiring no shelter from November to April. Colorado, where the climate is like that of Wyoming, ca have been driven in midwinter direct from the plains wh they were feeding, to the shambles, producing beef of sweetest and juiciest quality.

The rapid and prosperous growth and development Wyoming Territory is already placed beyond a doubt. T people have effected a territorial organization under a libe constitution, guaranteeing to every man the rights of citiz ship. Wyoming offers superior and rapidly increasing attr tions to the farmer and stock-raiser. Although her lands yet unsurveyed, and undisturbed by wild speculation, ther no bar to settlement upon her broad plains and beauti savannas, and all the advantages involved in the Homestead a Pre-emption laws can be secured without difficulty. Viole and disorder, which have so often characterized the early s tlement of our mineral regions, are fast giving place in W ming to the irresistible influences of lawful and peace industry. Already the germs of a splendid State have tal root around the Black Hills, and the young tendrils are no

ished by resources and natural advantages which promise to rival those of any other region of the far West. Ere long the westward tending engine, freighted with thousands of eager emigrants, will pause at Wyoming to discharge its precious burden. Before the advancing footsteps of civilization the Indian must retire. His hunting-grounds will be turned into cornfields, and the smoke of his wigwam superseded by the rising incense of a thousand hearth-fires.

DAKOTA.

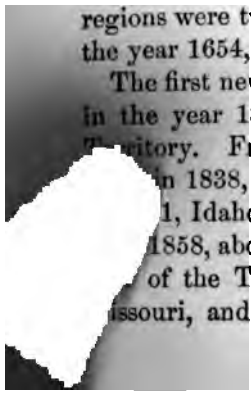
MANY Indian traditions assert that the sacred birthplace of the primal ancestors of all the red men who now inhabit the earth was at the Red Pipe-stone Quarry, about a hundred miles northward from Yankton, the capital of Dakota. The wandering Sioux of the plains held that the Great Spirit first formed man from a piece of this pipe-stone. Other tribes believed that the "great freshet" left alive but one person, a virgin. Upon the sacred quarry she was delivered of twins, whose father was a war-eagle, and thus the earth was peopled.

Hence it is, perhaps, that the Indian's symbol of peace is the pipe-stone calumet—the flesh of their ancestors—and that the quills of the war-eagle decorate the heads of their braves.

Many historians and travelers tell us that the tribes who roamed and warred from the Ohio northward to the great lakes, and westward to the mountains, all sprang from the race of Dakotas, or "friendly people," whose largest villages and choicest hunting-grounds were within the limits of the present Territory.

The first white men ever known to have penetrated these regions were two young Canadians, who made a trip thither in the year 1654, to obtain furs.

The first newspaper in the Mississippi Valley was published in the year 1835, at Dubuque, in what was then Wisconsin Territory. From this vast region have since been created, [illegible] in 1838, Minnesota in 1849, Nebraska in 1854, Dakota [illegible]1, Idaho in 1863, and Montana in 1864.



[illegible]1858, about 16,000,000 acres of land lying in the southern [illegible] of the Territory, and watered by the Big Sioux, James, [illegible]issouri, and Niobrara rivers, were purchased from the In-

dians, on condition that they would remove to their reservation near Fort Randall. According to Mr. M. K. ARMSTRONG, of Yankton, in his excellent little "History of Dakota, Montana, and Idaho,"—

Here begins the date of permanent settlement in Dakota, when the retreating red race looked back upon the advancing sentinels of civilization who had come to subdue the wilds, and adorn our rivers with thriving villages. And here we commence the written history of Dakota's white race, established in a land where "wild tribes of men have marched their armies over our towns and fields, and fierce battles have been fought where, ere long, churches may rear their spires, and our plowshares turn furrows amidst the graves of buried races, and our children play, perhaps, where generations of children have played before."

Scarcely had the Indians removed from their old hunting-grounds when settlers began to enter the Territory and erect their western cabins.

In 1859, the first white families settled in the counties of Union, Clay, and Yankton.

* * * * * * *

On the 2d of March, 1861, President Buchanan approved the bill giving to Dakota a territorial government. The news did not reach Yankton until the 13th of the month, and on that day hats, hurrahs, and town lots "went up" to greet the dawning future of the great Northwest. Under its new boundaries the Territory comprised all of the present Territory of Montana and the eastern slope of Idaho, and contained about 350,000 square miles. It was bounded on the north by the British line, east by Minnesota and Iowa, and south by the Iowa line and the Missouri, Niobrara, and Turtle Hill rivers up to and along the forty-third parallel of latitude to the Rocky Mountains thence along the Snowy Range to British America.

Dakota, thus established, constituted the largest Territory in the United States, and afforded a river navigation of more than 2,000 miles. The population of the Territory, by a census taken at that time, was 2,402.

During the summer of 1862 the first discovery of gold had been made in western Dakota, within the present Territories of Idaho and Montana.

Idaho was erected into a Territory on the 3d of March, 1863, and in 1864 Montana was created out of eastern Idaho.

Through the midst of our entire border the Almighty has traced the water-course of one of the mightiest rivers on the continent, rising among cliffs of eternal frost, and bearing upon its bosom the wealth of mountains, the commerce of the valleys, and

harvest of the plains, southward to the seas. Not five years of its organized existence have yet elapsed, and notwithstanding the terrors of a three years' relentless Indian war in our midst, the people of our Missouri Valley have steadily advanced to a permanent degree of prosperity, with churches and schools and all the attendants of an enlightened community.

We extract the following from a recent Report of a Committee of the Legislature of Dakota, appointed to collect information respecting the mineral, agricultural, and manufacturing resources of the Territory:—

Dakota Territory occupies the most elevated section of country between the Arctic Ocean and the Gulf of Mexico; forming, to a great extent, the water-shed of the two great basins of North America—the Missouri and Mississippi rivers, and the tributaries of Hudson Bay. Thus within the limits of Dakota are found the sources of rivers running diametrically opposite; those flowing northward reach a region of eternal ice, while those flowing southward pass from the haunts of the grizzly bear and the region of wild rice through the cotton-fields and the sugar plantations of the Southerner, until their waters are mingled with the blue waves of the Gulf.

The general surface of the country east and north of the Missouri is a beautiful, rich, undulating prairie, free from marsh, swamp, or slough; traversed by many streams and dotted over with innumerable lakes of various sizes, whose wooded margins, and rocky shores, and gravelly bottoms afford the settler the purest of water, and give to the scenery of the Territory much of its interest and fascination. West of the Missouri the country is more rolling, and gradually becomes broken, hilly, and finally mountainous, as the western limits are reached and terminated by the Rocky Mountains.

The mighty Missouri runs through the very heart of our Territory, and gives us more than one thousand miles of navigable water-course, thus giving us the facility of cheap water transportation, by means of which we can bear away the surplus products of our rich, luxuriant lands to Southern markets, and receive in exchange the trade and commerce of all climes and lands.

We have, located on the Missouri, Big Sioux, Red River of the North, Vermillion, Dakota, Niobrara, millions and millions of acres of the richest and most productive of lands to be found anywhere within the bounds of the National Government.

We have, combined, the pleasant salubrious climate of southern Minnesota, and the fertility of central Illinois.

MINERALS.

COAL.—On the Missouri River at Fort Rice, coal has been discovered in great abundance, some veins from ten to fifteen feet thick. * * * Good cannel coal, or bituminous coal, has been discovered very recently on the Dakota River, about forty miles north of the city of Yankton, near Fort de Roche; also some specimens on the Big Sioux River.

IRON.—There is no limit to the amount of iron ore in Dakota Territory. * * * It crops out on the Missouri River from Bijou hills to above Fort Sully, a distance of one hundred miles —the beds in some places fifty feet thick and inexhaustible.

CLAYS, &C.—There is abundance of clay that will make the best of brick; on the Big Sioux, extending to the noted Red Pipe-stone Quarry, abundance of white marl, that would make brick of great beauty, resembling the celebrated Milwaukee brick, only of more variable colors. At Sioux Falls, on the Big Sioux River, and at Fort de Roche, on the Dakota River, there is abundance of red sandstone that makes an excellent building stone. There is more or less limestone on all of the streams of Dakota, and very fair building timber on most of the streams.

RIVERS OF DAKOTA.—The Missouri River extends a thousand miles through the Territory, and is navigable for steamboats the entire distance, and hundreds of miles above; the river is from one-half to one-third of a mile wide, and Dr. J. V. Hayden, U. S. Geologist, says thus of it in his report of the Missouri country: "The broad bottom prairies of the Missouri, are of inexhaustible fertility, sustaining a vegetation variable in its character and of enormous growth; the upland prairies possess a soil composed of yellow marl well adapted to agriculture and grazing." This stream is well timbered almost its entire length.

The Big Sioux River is two hundred miles long, a clear running stream of clear water, and quite well timbered; this beautiful valley can not be surpassed for fertility of soil and the variety and luxuriance of its vegetation; the bottom lands on this stream are from a half to three miles wide, and bears an enormous growth of blue-joint grass, which makes hay of an excellent quality.

What has been said of the Big Sioux, may be said of the Dakota and Vermillion rivers, except that there is not so much timber as on the Sioux, and the soil not quite as good on the Dakota River as on the Sioux, although of a very good quality, and well adapted to stock-growing. As to the character and description of the other streams, we shall quote from Lieut. Warren:

"The Big Cheyenne is a most important river, and has its extreme source west of the Black Hills, which its two main branches inclose. These forks are supplied by numerous streams

from the mountains, and they unite in about longitude 102° 20′, the river flowing into the Missouri in latitude 44° 48′. In its lower course I am informed there is fertile land on its banks, and there are considerable areas in and around the Black Hills. The Cheyenne River can be rafted, and the stream that comes from the hills could be used to drive the logs down the river," and thus a way is opened to this fine supply of timber.

"White Earth River has generally an open well-wooded valley, with fine soil and luxuriant grass. Any one who travels in Nebraska will always feel rejoiced when he reaches the banks of this beautiful stream. It is much resorted to by the Brulés. It has numerous branches, the largest of which is called the South Fork. The pine on White River and its tributaries is nearly equal in extent to that on the Niobrara. This stream has been used by traders to boat down their furs. I believe it can also be used to raft down the pine timber on its banks and branches." Lieut. Warren speaks very favorably of the Niobrara River, which is partly in our Territory, that there is considerable pine timber on its banks and branches, and much good land and excellent water.

The Red River of the North rises in Lake Travers, and flows north 380 miles to the British possessions, is a navigable stream its entire distance, well-wooded, and a soil unsurpassed in fertility. There are a number of other small streams, some of which have abundance of timber, and a good soil, and clear running water. There are quite a number of lakes in East Dakota remarkable for their beauty, and with their sylvan associations form the prominent charm of its rural landscape. There is an abundance of timber on some of these lakes surrounded with a good soil, water, and plenty of fish in the waters of the same. All the streams of Dakota abound in delicious fish of many varieties.

Soil.—The prevailing soil of Dakota is a dark, calcareous, sandy loam, containing a various intermixture of clay, abounding in mineral salts, and an organic ingredient derived from the accumulation of decomposed vegetable matter, for long ages of growth and decay. The earthy materials of our soil are minutely pulverized, and the soil is everywhere light, mellow, and spongy; while its sandy predominance makes our soil very early. The upland soil of East Dakota can not be surpassed for fertility and the variety and luxuriance of its vegetation.

Crops.—Your committee have been unable to get any accurate information in relation to the amount of the crops per acre, but from their own personal observation, they are of the opinion that no State or Territory surpasses Dakota in the yield of their crops per acre, and they are of the opinion the average yield of wheat per acre is twenty-five bushels; oats, forty-five; corn, between fifty and sixty; potatoes, two hundred and twenty-five. All vines and garden vegetables yield bountifully.

But for raising wheat, Dakota, we believe is not equaled by any State or Territory in the Union. Our dry, pure atmosphere is what is required for the perfection of this grain; the best wheat grown in the world is the wheat grown on the Red River, within the limits of Dakota. The inhabitants of that section claim sixty bushels as an average yield per acre, and the wheat weighs from sixty-five to seventy pounds per bushel. Every one that has ever seen any of the Red River wheat pronounced it the finest they ever saw. And we are of the opinion that a large portion of our Territory will yield equally as well: some farmers have told your committee of a yield of one hundred and four bushels of potatoes from one and one-fourth bushels of seed, and corn at one hundred bushels per acre.

THE STOCK-GROWING BUSINESS.

Dakota is the finest field in the world for stock-growing. It stands prominent above all other countries as the best for the production of grass. "The grasses," says Farrey, "are proverbially in perfection only in northern and cold regions. It is in the north alone that we raise animals from meadows, and are enabled to keep them fat and in good condition without grain." In none of the prairie districts of North America are the native grasses so abundant and nutritious as on the plains and in the valleys of Dakota. This is sufficiently proved by the countless herds of buffalo that pasture throughout the year, upon its plains, even north of the 49th parallel of latitude; a fact which suggests an equivalent capacity for the herding of domestic cattle. Horses and cattle roam during summer and winter over the prairies and through the woods, and keep fat without housing or hay. The wild grasses of Dakota, are of many varieties. The blue-joint of the valleys makes the best of hay, and generally yields about three tons per acre. The gramma or buffalo grass of the upland prairies is so nutritious that horses will work all the time, that are fed on it, without any grain, and keep fat. All of the wild grasses of Dakota are more nutritious than any of the tame grasses; cattle become fatter by pasturing on it. When cut it shrinks much less in curing for hay. It seldom heats. There is no dust in the hay. Horses that eat it never have the heaves. The hay in appearance is green, and it smells much sweeter than tame hay. On the whole, it is superior either for pasturage or hay for horses, cattle, or sheep. Owing to the healthiness and the dryness of the climate of Dakota, sheep must do extremely well in Dakota. We have no cold sleet-storms here, that are so fatal to sheep in many countries. The Indians have always kept thousands of horses in this country, but never feed them hay in winter.

MARKETS.—And here we quote from Lieut. Warren, who speaking of the frontier settlements on the prairies, says: "The western frontier has always been looking to the East for a market, but as soon as the wave of emigration has passed over the desert portion of the Plains, to which the discoveres of gold have already given an impetus that will propel it to the Rocky Mountains, then will the present frontier of Nebraska and Dakota become the starting-point of all the products of the Mississippi Valley which the population of the mountains will require." There is at the present time at least a population of fifty thousand persons in the mountains directly west of Dakota, that depend on the country east of their borders to supply them with all the products that they need for consumption, and such is the demand that all kinds of products raised by the farmers in Dakota, including cattle and horses, are worth twenty-five per cent. more in Dakota than on the Mississippi River. Some of the farmers of Dakota, the present season, although we have no large farms opened, have raised from fifteen hundred to three thousand dollars' worth of crops. The rich discoveries of gold recently made in all the mountain regions on the western boundary of Dakota, will furnish a better market for years to come, than the farmers of the valley of the Mississippi have at present.

CLIMATE.—In our dry atmosphere the cold is not so intensely felt as in more moist climates. It is impossible to estimate the importance of the manifold services which this characteristic element of the climate of Dakota, the dryness of its atmosphere, renders in the development of all organic life.

The same degree of cold in Dakota is felt much less than in the Atlantic States. Colds, chills, coughs, and all of the pulmonary diseases, are scarcely known in Dakota.

RAILROADS, &c.—We have no railroads yet in Dakota, but a number of lines in Minnesota and Iowa pointing to Dakota. The land-grant railroads in Minnesota that strike the eastern boundary of Dakota are as follows: "Routes one and two, from Stillwater by way of St. Paul, to a point between the foot of Big Stone Lake and the mouth of the Sioux and Wood River, and branch down the Red River of the North." "Routes three and four, from St. Paul to the southern boundary of the State, in the direction of the Big Sioux River."—"Route five, from Winona, *via* St. Peter, to a point on the Big Sioux River south of the forty-fifth parallel of north latitude."—"This grant was transferred to the Transit Railroad Company." The western terminus of this road was once located temporarily at Sioux Falls, now in Dakota. The company now intend to extend it through our Territory to the Missouri River, near latitude 40°.

Land-grant railroads in Iowa that point toward Dakota:—The Dubuque and Pacific, has its western terminus at Sioux City,

Iowa. McGregor Railroad has its western terminus at a point near the northern boundary of Union County, Dakota Territory. It will be seen by the foregoing that there are five railroads, running east and west, that have their western terminus on the eastern boundary of our Territory, giving us in a few years several lines of communication with the East.

The Northern branch of the Central Pacific Railroad starts from Sioux City, and it is expected that it will pass up the Missouri River, through our Territory, to the mouth of the Niobrara, thence up said river to the South Pass. This is by far the best route for that branch. The Northern Central Pacific Railroad will pass directly through our Territory, more than probably up the valley of the Big Cheyenne River.

The capacity of our Territory for raising immense herds of cattle, and for the production of large crops of corn, wheat, oats, rye, barley, buckwheat, potatoes, sorghum, melons, fruits, and vegetables, demonstrate the ability of our country to sustain a dense population.

Shall we not judge of the future by the past? As regards soil, climate, beautiful uplands, rich prairies, luxuriant bottoms, productive mountain valleys, mineral wealth, navigable rivers upon which to float our cereal products and commercial exchanges, what section of the country within the broad confines of our Republic, is fairer, or lovelier, or richer, or more inviting, as the home of the active, intelligent and industrious citizen? Before a generation shall have passed more than a million of people will be living in the valley of the Missouri alone, and the Pacific Railroad will have been completed, connecting the two oceans with its iron bands.

Dakota possesses within itself all the elements which are necessary to constitute a great, prosperous and powerful State. Our rich alluvial lands will produce the corn, and the broad prairies the nutritious grasses, which are ample to feed and support cattle to supply every market in the Union.

The Salt lakes in the northern part of the Territory can furnish inexhaustible supplies of the best of salt.

The high rolling prairies south and west of the Missouri seem especially intended for the herdsmen of sheep and the growth of wool.

RESOURCES OF DAKOTA.

The falls on the Big Sioux furnish a motive-power sufficient to drive all the machinery of the New England mills.

The Black Hills and the mountain ranges at the sources of the Wind River, Yellowstone and Missouri are rich beyond conception in mineral resources—of coal, copper, iron, and gold.

With all the elements of power surrounding us—we need but numbers, combined with industry, intelligence, and virtue, to make Dakota one of the most desirable and potent States of the Government.

TO ENCOURAGE MANUFACTORIES,

Our legislature has wisely exempted all property invested in woolen manufactories for a period of ten years, cotton manufactories, twenty years, and one-half of all others, five years; sheep are also exempt a certain number of years from taxation.

In the course of two or three years, several towns are to spring up on the Missouri River, within the Territory of Dakota, and between the mouth of the Big Sioux River and the mouth of the Big Cheyenne River, that will vie with Omaha, Nebraska City, and Leavenworth, for the overland trade to Montana, Idaho, and the northern Pacific States. These new towns will have the advantage of some several hundred miles distance, over Omaha, Nebraska City, and Leavenworth. The thousand miles of country between St. Louis and Fort Sully, Dakota, must soon be supplied with pine lumber from the several millions of acres of pine land of the "Black Hills of Dakota," *via* the White Earth and Big Cheyenne rivers; and we look to see the prediction of J. W. Taylor, fulfilled the coming spring, who says: Even if there were no proofs of gold, silver, iron and copper in the gulches of the Black Hills, the demand for pine lumber in the valleys of the lower Missouri, will send armed parties into the forests which darken the flanks of the mountains. Give Dakota the supply of pine timber to the towns and plains below, and a greater accumulation of wealth, a greater stimulant of agriculture and commerce are assured to the pioneers of this Territory, than if the Black Hills proved as auriferous as California.

Red River Valley.—This valley in Dakota, is about two hundred miles long, and from forty to sixty miles in width, covering an area of eight thousand square miles, or more than five million acres of land, and possesses greater natural advantages than any district of country in the West now open to settlement.

The Rivers.—There are eight rivers, varying in length from forty to one hundred miles, that run across this valley from west to east, emptying into Red River, within this Territory, each having numerous creeks and small tributaries that water the country upon each side.

The Timber.—The timber, which is oak, ash, elm, poplar, lynn, and maple, is that which will be used for the various purposes of the farmer for building and fencing, and the various kinds of small timber grown in a timbered country are interspersed with the above.

Like all prairie countries, the timber is chiefly confined to the water-courses, or in groves, and there is hardly a creek without its belt of timber, in and near which are found the various kinds of wild fruits, such as raspberries, strawberries, blueberries, gooseberries, currants, cranberries, grapes, plums, &c., in large quantities and of excellent quality.

THE SOIL.—The soil is a black sandy loam, of alluvial and vegetable deposit, from two and a half to four feet deep, resting upon a stratum of yellow clay four to ten feet in thickness. This soil is exceedingly rich, and easily worked, and in a state of nature yields a luxuriant growth of blue-joint grass, which makes a quality of hay almost equal to the timothy and herdsgrass of the Middle States.

WHAT WILL GROW.—The grains now raised, and to which the country is especially adapted, are wheat, rye, barley, and oats. The yield per acre being in excess of any thing known east of the Rocky Mountains, but to say fully equal to Minnesota will be quite modest, and will fall below rather than above the truth. Every thing in the line of garden vegetables is raised in the greatest abundance and of the very best quality, with a heavier yield than is usual in the Middle States, and with far less labor.

OUR WINTERS.—The great dread of deep snow and cold winters in so high a northern latitude is altogether imaginary. The average depth of snow for the last ten years has not exceeded sixteen inches, which usually remains upon the ground from about the 15th of November to the 1st of March, and while the mercury may fall to even thirty-five degrees below zero, owing to the absence of high winds the weather does not seem rigorous, nor does it seem as cold as it does in Michigan or Ohio when the mercury is at, or even from five to ten degrees above, zero.

The snow does not drift as in open prairie countries; and as good sleighing can be relied upon, no trouble is experienced in winter traveling. Cattle and horses that are allowed to run at large in the timber, gather their own living, and but little if any hay is given them during the winter months.

OUR MARKETS.—There are but few sections in the United States that have a better home market for their surplus products than has the Red River valley at the present time. The Red River being navigable from lower Fort Garry, in British America, eighty-five miles north of our northern boundary, to Fort Abercrombie, in this Territory, two hundred miles south of said boundary, making a total distance of two hundred and eighty-five miles, the steamer "International" affords cheap transportation for our surplus products which are purchased by the Hudson's Bay Company for the supply of their army of employees and trading posts in the interior of their territory; and in addition to this, the various military posts in northeastern Dakotah, and the mining

country of the Saskatchawan, in British America, will look to this valley for supplies.

With an eye to this future granary of the West, capitalists are pushing a railroad from St. Paul, north and west, to tap this valley at or near the head of navigation on the Red River, in order to carry to eastern markets our grain, beef, pork, butter, cheese, wool, furs, &c., and to do the already gigantic carrying trade of the Hudson's Bay Company and the British settlements. Eighty miles of this road are already in running order, and within a very few years it will be extended to the Red River, placing us in direct communication, by water and rail, with St. Paul, Chicago, and the East.

Public Lands.—The survey of public lands in the Red River valley was commenced by the Government late last summer, and with the exception of a few townships subdivided on the Pembina River, only boundary and meridian lines were run. But during the coming summer the surveys will be extended.

And it is confidently expected that, in compliance with the memorial of the present session of our legislature, Congress will provide for the establishment of a United States land office in the Red River valley, thereby enabling settlers to secure title to their lands by homesteads or pre-emptions.

Our Minerals.—Except coal and salt, we have as yet discovered no minerals in this valley. It is, however, believed that various valuable metals will be discovered in the Pembina and Turtle mountains. But of salt there is an inexhaustible supply. Coal has but recently been discovered near the east base of Pembina Mountain, and accessible to the settlements; and while it is known to be very extensive, its quality has not as yet been tested.

CORRESPONDENCE.

We are indebted to the writer of the foregoing respecting the Red River valley, for the following letter:—

Territory of Dakota, County of Pembina,
Pembina, *July* 28, 1868.

F. B. Goddard, Esq.:—

Sir: * * * As there is plenty of excellent prairie and timber land vacant and subject to pre-emption and homestead, there is no price fixed on unimproved lands. The usual labor required in a new country is in demand, at from $1 to $3 per day, and of mechanics, blacksmiths are most needed at good prices.

As yet we are badly provided with good schools, and many of our settlers send their children to Fort Garry, in the British Red River settlement, where they have very good schools of all kinds.

There are but two church buildings in this county, both Catholic. In population, French extraction predominates.

Pembina County embraces the whole Red River valley in Dakota, from the British American line south to the river Cheyenne, a distance of about 150 miles, and extending west from the Red River about 35 miles. This whole section is a fine farming country. Yours truly,

E. STUTSMAN.

Mr. ARMSTRONG, to whose work we have referred in the earlier pages of this article upon Dakota, sends us the following communication:—

Yankton, the capital of Dakota, is situated on the Missouri River, 60 miles above Sioux City, present terminus of Chicago and Northwestern Railroad; contains 1,000 people, two churches, two schools, one seminary. Land is worth $10 per acre within three miles of town. Business lots worth $200 to $500. Good residence lots, $100. Timber land is worth from $10 to $40 per acre. Pine lumber is worth $35 per M.; cottonwood, $20. The river furnishes an outlet to the eastern markets, but most of the farmers' produce is sold to the Indian agencies and military posts up river, at high prices. M. K. A.

We insert the following from a Dakota paper of July, 1868, on Immigration:—

About 30,000 acres of land were taken by pre-emption and homesteads at the Vermillion Land Office last month, and probably as much or more will be taken during the month of July. Our Territory is rapidly filling up with the very best class of population, consisting of thrifty and industrious farmers and mechanics. Crops, all over the Territory, promise an abundant yield, and Dakota may now be considered on the high road to future wealth and prosperity. The land which is entered is rising rapidly in value, but still there is enough remaining for all who desire to make homes in our midst. Our rich and valuable lands are not in the hands of eastern speculators, but are reserved for actual settlers. We trust that emigrants will give no credence to the falsehoods that are in circulation in some parts of Iowa, concerning Dakota and its agricultural resources. Let them come and satisfy themselves of their falsity. There is no State or Territory in the United States that can boast of finer soil, healthier climate, or more inducements for emigration than Dakota, and this is beginning to be known in the populous districts of the East.

NEBRASKA.

NEBRASKA, the youngest of the "Union family," was admitted as a State in February, 1867.

The growth and prosperity of Nebraska, as a Territory, were reasonably substantial and rapid, although the eastern counties, and more especially those lying along the Missouri River, were the only portions where settlements to any extent had been made. But within the last two years the great Pacific Railroad has been built entirely across Nebraska, from the eastern to the western boundary, along the fertile valley of the Platte River, and opening up to the settler some of the most productive bottom lands west of the Mississippi.

The great Plains system is more extensively and more beautifully illustrated in Nebraska than in any other State or Territory of the Union. From the margin of the magnificent timber belt along the banks of the Missouri, to the extreme western limits of the State, the country gradually rises in successive waves of vast grassy plains, which roll in primeval splendor to the very base of the Rocky Mountains. The natural vegetation of this region is strong and thrifty, excepting the timber growth, which is confined to the margins of the streams. These in the summer are fringed with a dense foliage of green, but furnish only a limited supply of material for lumber and fuel. Vast stretches of upland intervene, upon which sometimes, for fifty miles in extent, not a tree is to be seen.

Back from the broad bottom lands of the Upper Platte are occasional sandy bluffs, pierced by deep ravines and watercourses, upon which the stunted red cedar has in some places flourished extensively; but the supply is not adequate to the requirements of even a thinly populated district.

Am. Photo-Lithographic Co. N.Y. (Osborne's Process)

The scarcity of timber parks and groves throughout central and western Nebraska is the only defect which mars the otherwise enchanting beauties of her landscapes. But this deficiency can in time be supplied by a judicious system of forest planting, which, to a limited extent, has already received attention in some parts of the State. For the present, the lumber indispensable for building and fencing must necessarily come from beyond the limits of the State; but the facilities furnished by the Missouri River and the Pacific Railroad, and its constructing and projected branches, will soon relieve settlers from any embarrassment in this respect.

The reader will have already inferred that the soil of Nebraska is remarkably rich and arable. Such fertility and luxuriance as we have described could only prevail where great strength and depth of soil existed. With the exception of a few patches of drift-sand in the western part of the State, upon the borders of what has been erroneously styled the "Great American Desert," the same thrifty features extend to the base of the Black Hills.

The streams of Nebraska are generally shallow, and subject to sudden and extensive overflow. The Platte River, although in many places more than a mile wide, can be forded easily at ordinary stages of water, and when not swollen by freshets, the passage of small row-boats is frequently rendered difficult from numerous and constantly shifting sand-bars. The waters of the Platte, like those of the Missouri, are very turbid, holding in suspension a very large percentage of the alluvial washings from the mountains and foot-hills far up toward the river's source. These are annually deposited in vast quantities upon the extensive meadow bottoms on either bank, adding to the already deep soil, and quickening with new life the wonderful vegetation of the valley.

The features of Nebraska, thus briefly mentioned, are familiar to hundreds of thousands of emigrants who have traveled the great overland route to California and the intervening mineral regions of the West; and but for the irresistible fascinations of gold-hunting, large numbers, charmed with the

natural beauties and productiveness of the Platte Valley, would have stopped by the way and settled permanently. How many whose lives have been embittered by the perils, the privations, and disappointments which are incident to mining life, could have found prosperity and contentment along the banks of the Platte, we will not attempt to estimate, but doubtless their name is legion.

The qualities of the grasses which flourish on the plains of Nebraska are almost unexampled for nutritiousness and delicate tenderness. For ages countless millions of buffaloes have fed and fattened upon them, and, even now, annually return in vast numbers to enjoy the sweet forage for which they seek elsewhere in vain. The immense freight and emigrant trains annually traversing the plains find abundant food for cattle and other animals, which often arrive, at the end of long and toilsome journeys, improved in weight and condition.

The Commissioner of the General Land Office, says:—

Nebraska extends from the Missouri westward to the Rocky Mountains, with an extreme length of 412 miles, decreasing to 310 miles on the southern border, its extreme width being 208 miles, diminishing to 138 miles on the west.

Its area is 75,995 square miles, or 48,636,800 acres.

The country through its entire length dips toward the Missouri River, being upon the western slope of the great central basin of the North American continent. The larger portion is elevated and undulating prairie; there are no mountains or high hills; the bottom lands of the river valleys are generally level. Above these, from forty to one hundred feet, are second bottoms or table lands, sloping backward to the bluffs, which range with the general level of the country. These bluffs sometimes rise hundreds of feet above the river level; back of these is the undulating prairie, well watered with springs and running streams, being covered with excellent grasses. This prairie resembles the waves of ocean suddenly arrested in their swell and changed into soil and rock.

In remarkable contrast with the general appearance of the State is the tract known as Mauvaises Terres, in the western part of the State, ninety miles long and thirty wide, produced by some powerful agencies of denudation and degradation of the land. Viewed from a distance it seems like some deserted abode of civilization; the prismatic and columnar masses appear as residences of modern architecture or public buildings, with

towers, columns, and walls. A near approach dispels the illusion, the imposing forms of architectural beauty resolve themselves into masses of rocks with labyrinthine defiles. These first appearances, however, are not correct exponents of geological character, as they are found upon examination to contain some excellent lands.

The population of Nebraska in 1860 was 28,841; the inviting features of the country have stimulated immigration to such an extent that in 1867 the State was admitted into the Union, having attained the requisite number of inhabitants. Its location is such as to command especial attention of immigrants.

SOIL.—The soil of the eastern portion is exceedingly fertile; the prairies are covered with a heavy sod, the matted growth of ages of vegetation, several teams of oxen being required to break it; the subsequent tillage is comparatively easy, the ground being rendered light and mellow. Along the rivers are groves of oak, walnut, cottonwood, hickory, and willow; very dense forests of cottonwood grow along the Missouri River above the mouth of the Platte.

CLIMATE.—The climate is milder than the Eastern States within the same parallels of latitude; the summer is of high temperature, but the sultriness is alleviated by cool, refreshing winds blowing over the prairies. The quantity of rain is less than falls on the Atlantic side. This dryness does not become appreciable east of the 98th meridian. West of that meridian the soil, so far as known, is arid and not so well suited to agriculture; that part of the State to the eastward, however, is not deficient in moisture. The peculiar character of soil and climate indicates that stock-raising will become a very important and remunerative branch of its agricultural enterprise. The dryness of the climate and the copious vegetation, especially of nutritious grasses, will attract capital, with a view to the establishment of wool-raising interests.

The trade of Nebraska is in its infancy. Its facilities, natural and artificial, must soon develop an immense volume of domestic commerce, in addition to the aggregate of the carrying trade that will pass through the State upon the completion of the Union Pacific Railroad. Five hundred miles of that route are completed, and a wonderful progress is announced in the prosecution of the remaining portions. Within a score of miles farther lies the foot of the Rocky Mountains. The massive grades and excavations of that portion of the route will, of course, not admit of the rapid daily progress that has been shown in the extraordinary operations of the past year.

TOWNS.—Nebraska City, on the Missouri, is a well built town in the center of an extensive domestic commerce, requiring transportation amounting to 13,337,734 pounds in 1864, and employing 1,792 men, 1,410 mules, 13,808 oxen, and 1,587 wagons, the total expense of which was $2,134,037. The population

of the town is estimated at 8,000. Omaha City, the capital, is located upon high, undulating ground between the same river and the posterior bluffs, commanding a very fine view. Limestone for building is found in great quantities in the neighborhood of the city. This city is the eastern terminus of the northern branch of the Pacific Railroad, which gives it an immense importance as a commercial point, and is enlarging its wealth and population at a very remarkable rate. Its population in 1865 was 4,500, and is now estimated at 12,000.

In the State the public lands remaining undisposed of are equal to about forty-two and a third millions of acres.

United States Geologist, F. V. HAYDEN, made last year a very careful examination of the eastern portions of Nebraska, and from his interesting report thereon we extract:—

The best building stone yet observed in the State occurs in the southern portion of Lancaster County. The quarries have been opened, and several fine houses built of the stone. The rocks are usually called magnesian limestones; are very durable, easily wrought, and make most beautiful building material. There is also plenty of potters' clay, sand, and all the materials for the manufacture of brick without limit.

THE CULTIVATION OF FRUIT AND FOREST TREES.—I think a sufficient number of experiments have already been made in this western country to show clearly that the forests may be restored to these almost treeless prairies in a comparatively short period of time. There are certain trees which are indigenous to the country, and grow with great rapidity under the influence of cultivation.

* * * * * *

I do not believe that the prairies proper will ever become covered with timber except by artificial means. Since the surface of the country received its present geological configuration no trees have grown there, but, during the tertiary period, when the lignite or "brown coal" beds were deposited, all these treeless plains were covered with a luxuriant growth of forest trees like those of the Gulf States or South America. We are daily obtaining more and more evidence that these forests may be restored again to a certain extent, at least, and thus a belt or zone of country about five hundred miles in width east of the base of the mountains be redeemed. It is believed, also, that the planting of ten or fifteen acres of forest trees on each quarter section will have a most important effect on the climate, equalizing and increasing the moisture and adding greatly to the fertility of the soil. The settlement of the country and the increase of the timber has already changed for the better the climate

of that portion of Nebraska lying along the Missouri, so that within the last twelve or fourteen years the rain has gradually increased in quantity, and is more equally distributed through the year. I am confident this change will continue to extend across the dry belt to the foot of the Rocky Mountains as the settlements extend and the forest trees are planted in proper quantities.

* * * * * *

Much might also be said in regard to the influence of woods in protecting the soil and promoting the increase in number and the flow of springs, but all I wish is to show the possibility of the power of man to restore to these now treeless and almost rainless prairies the primitive forests and the humidity which accompanies them.

The counties of Otoe, Nemaha, and Richardson, contain more timber land than any other portion of the State, and the aggressive character of the patches of woodland can be seen everywhere. Hundreds of acres have been covered over with a fine healthy growth of hickory, walnut, oak, soft maple, coffee, bean, basswood, &c., within the past ten or twelve years, since the fires have been kept away, and protection afforded the young trees by the settlements.

In the more southern counties the success in planting trees and in raising fruits, especially the smaller kinds, is even more marked than north of the Platte. All kinds of garden vegetables grow better in Nebraska than in any region with which I am acquainted.

* * * * * *

I have said enough to show already that most of the hardy northern trees may be cultivated on these western plains with entire success. The cultivated forests will prove much more desirable than those of natural growth, and their arrangement may be made as beautiful as the taste of the proprietor may dictate. The greater portion of the more intelligent and thrifty farmers are planting forests to greater or less extent.

RICHARDSON COUNTY.—Richardson County is in some respects the finest county in the State. It lies in the southeastern corner of the State and borders on the Missouri River, *and forms the type of fertility of soil and climate.* Being located near the 40th parallel, the climate seems to favor the cultivation of all the hardy fruits and cereals.

The surface is more rugged than many of the interior counties, partly on account of the extreme thickness of the superficial deposit of soft yellow marl and the numerous layers of limestone which crop out along the river banks. The county is fully watered with ever-flowing streams and innumerable springs of the purest water.

There is more woodland in this county than in any other I

have examined, and on this account the farmers have neglected the planting of trees too much. I did not find the farms quite as well improved as in Nemaha County, but the county is now becoming thickly settled by actual settlers, who are devoting themselves to the improvement of their farms and the raising of large crops.

It is not an uncommon thing for a farmer to have growing 40 or 50 acres of corn, and about the same number of acres of wheat and oats, and not unfrequently as high as 100 or 200 of each.

There is a ready market for all kinds of produce at the highest price. Although nearly all the settlers came into the county poor—many without any money at all—nearly all are becoming moderately rich, and every man, with industry and prudence, may become independent in a few years. This country may certainly be called the poor man's paradise. There is scarcely a foot of land in the whole county that is not susceptible of cultivation. I have never known a region where there is so little waste land.

* * * * * *

The great pest of this country appears to be the grasshopper. This year it seems to be restricted in its distribution. I did not observe any north of the Platte, and very few north of Nebraska City. But at the latter place, and for four or five miles around it, the grasshopper is very abundant and destructive.

Mr. Gilmore, one of the wealthiest farmers in the State, has lost seventy acres of wheat and sixty-five acres of clover and timothy grass. Many other crops have been injured—others have suffered in this vicinity.

* * * * * *

The great fertility of the soil in the river counties of Nebraska is mainly due to the beds of silicious marl which cover those counties to a greater or less depth. This is usually called loess from a similar formation which occurs along the Rhine, in Germany. An outcrop of coal at Nebraska City has been wrought by drifting in a distance of three hundred yards, and several thousand bushels of pretty good coal have been taken therefrom. The seam was about eight inches in thickness. On account of the scarcity of fuel in this region this thin seam has been somewhat profitable. At Otoe City, eight miles below Nebraska City, the lithological character of the beds seems to change, so that we have red shales and clays passing up into soft yellow sandstones, with comparatively little rock useful for building purposes. There is here also a bed of slate and coal about eight inches in thickness.

* * * * * *

It is evident that the greater portion of the western half of the State of Nebraska must remain unsettled, or be inhabited sparsely by a people devoted to pastoral pursuits. It is a well known fact

that the same hills of other portions of the west, that appear the most sterile and most deficient in wood and water, are the favorite resorts of the wild game, and that they become exceedingly fat. The short grasses which grow upon these supposed arid, sterile plains, seem to suit the palates of the wild animals, and they find sufficient water at all seasons of the year. I would infer from this fact, that it may yet become a fine stock-growing country, and, aided by the facilities to market which will be furnished by the Union Pacific Railroad, I can not but believe that some of the finest wool in America will one day reach the market from western Nebraska.

I should judge that peat beds will be found in great numbers along the Missouri, north of the Platte, and in the valley of the Elkhorn and along the Platte. No effort has yet been made to search for them, and yet the indications are excellent.

On the south side of the Niobrara the Sand Hills commence at Rapid River and extend westward about 100 miles. Along Loup Fork they commence near the forks or the junction of Calamus Branch with Loup Fork.

The whole surface is dotted over with conical hills of moving sand. These hills often look like craters or small basins, the wind whirling and, as it were, scooping out the sand, leaving innumerable depressions with a well-defined circular rim. There is a great deal of vegetation scattered through this portion, grass and plants peculiar to sandy districts.

Many of the hills are so covered with a species of *yucca*, that their sides are well protected from the winds by their roots. It is the favorite range for buffalo and antelope, and these animals become very fat, and from this fact we may infer that this district may be adapted for grazing purposes. It can never be used for purely agricultural purposes.

Traveling is also very difficult among these hills; the wheels sink deep into the loose sand, rendering it impossible to transport loaded teams through them. The water, though not abundant, is usually quite good, mostly in small lakes.

There are also many alkaline lakes, which may be readily distinguished from the fresh water by the absence or presence of vegetation around their borders. We may therefore conclude that an area of 20,000 square miles, forming the northwestern portion of the State, is totally unfit for cultivation, and is even doubtfully suitable for grazing. There is scarcely any timber on the whole area. Along the Platte, and south of that river, the surface is less sandy and the soil more fixed, so that there is at least a moderate degree of fertility, but the absence of timber and timely rains will render the whole quite undesirable for the farmer.

As I have before remarked, the cultivation of crops and the

planting of forest-trees by the settlers farther to the eastward may so modify the climate as to produce a more equable distribution of moisture throughout the year. But at present I do not see how it can be settled except by a pastoral people.

Statements of the Department of Agriculture, respecting the price and quality of lands, crops, grasses fruits. &c.,— April, 1868:—

1. Our returns from Nebraska are chiefly from counties bordering upon or adjacent to the Missouri River, or upon the Kansas border, with a few of the interior counties, and basing an estimate upon the figures from these localities, the settled portions of the State show an increase in the value of farm lands of from 150 to 175 per cent. since 1860. Dodge County reports an advance of 400 per cent.; Burt and Gage, 200 per cent.; Dixon, Dakota, Otoe, 100 per cent.; Cass, Richardson, Pawnee, 50 per cent.; Merrick, 33 per cent. In a number of counties the settlements have been made since 1860, when the farms were bought at $1.25 per acre, or entered under the homestead law. Such is the case with Jefferson, where there are now farms held as high as $15 per acre. In Hall County, in the interior, farms of 160 acres which could have been purchased in 1860 for from $300 to $400, now command from $1,500 to $4,000 according to improvements and distance from railroad stations.

2. The value of wild or unimproved lands ranges from the Government minimum price of $1.25 up to $10 per acre. In Dixon, choice locations on prairie, $3 per acre, very fertile, well watered, capabilities good; Dakota, $3 to $7 per acre; Burt, $5 to $6 per acre, excellent farming land; Dodge, $4 per acre; Cass, $3 to $10 per acre, for lands lying five to fifteen miles from the Missouri River, gently rolling, well watered, and unsurpassed in fertility; but little Government land in the county; Otoe, $5 per acre, on the average, mostly prairie, except along the streams, gently undulating, with no abrupt bluffs or hills, except when it takes its first rise from the Missouri River, and with this exception is all capable of cultivation; Richardson, $4 per acre, deep, rich, sandy loam; Pawnee, $2 to $10 per acre soil black muck or loam, with clay subsoil, very rich, producing wheat, corn, and oats; Gage, $2 per acre, chiefly prairie, timber lands generally being taken up by settlers; Jones, $2 to $5, mostly prairie, good timber as high as $5 per acre; Merrick, $3 per acre, level prairie, quality good, will produce all kinds of grain and roots; Buffalo, $1.50 per acre; Hall, $2.50 per acre, nearly all level prairie, rather sandy, but rich, and produces well all the crops suited to the latitude. There are millions of acres of the best prairie lands in the State to be purchased at Government prices, or subject to entry under

the provisions of the homestead acts, but a small proportion of the State having been taken up by settlers or speculators. In 1860 there were over forty-eight million acres of wild or waste areas in Nebraska, against less than seven hundred thousand acres included in farms.

3. MINERALS.—The great resources of Nebraska are to be found in her deep rich soil and agricultural capabilities; timber being comparatively scarce, and minerals not generally abundant, so far as yet developed. The timber is mostly confined to the banks of the streams, and commands high prices, and farmers are wisely engaging in the culture of forest-trees for the wants of the future. Our correspondent reports a vast deposit of iron ore in Gage County, of good quality, the vein commencing near the surface of the ground and running very deep. Iron ore is also reported in Dixon and other counties. Coal is found in various sections, but has been but slightly developed. It is found in Richardson at a depth of 20 feet, while in Pawnee it crops out of the bluffs along the ravines. Deposits exist also in Jones, Dixon, Cass, and other counties along the Missouri, worthy of attention. Rock and sandstone, for building purposes, abound in various localities, supplying, to some extent, the want of timber. Limestone is also found in several counties.

4. CROPS.—Wheat, corn, oats and potatoes are the principal crops grown in Nebraska, though various others are successfully cultivated to more limited extent. Our Hall reporter writes that wheat, oats, barley, corn, potatoes and peas, are produced in that county, with an average yield as follows: wheat 25 bushels to the acre, worth $2 per bushel; oats, 50 bushels, at 80 cents; barley, 40 bushels, at $1.25; corn, 40 bushels, at $1; potatoes, 100 bushels, at $2; peas, 30 bushels, at $3 per bushel. As an extraordinary crop, he names 45 bushels of wheat, 70 bushels of oats, 45 bushels of barley, 80 bushels of corn, and 250 bushels of potatoes. In Pawnee, Richardson, Otoe, and several other counties, Indian corn is made a specialty; in the first named, yielding 50 bushels to the acre; and in Richardson, from 50 to 75 bushels, never failing, and largely fed to hogs. Wheat is the chief crop in Dakota and Dixon, in the latter, yielding about 25 bushels per acre, worth $2 per bushel; profit, 100 per cent. In Dodge County, last season, the crops averaged as follows: corn, 35 bushels, worth 90 cents; oats, 50 to 60 bushels, 55 cents; wheat, 18 bushels, $1.25 to $1.40. In Jefferson, they raise as high as 35 bushels of wheat to the acre; corn, from 25 to 60—the former worth $1.25, the latter 60 cents per bushel. Our Cass reporter writes:—

Corn, wheat and oats, are the staple crops of this county. A man and team, with the improved farm machinery, can easily cultivate seventy acres of corn, wheat and oats, and do it well,

with the addition of a little help in harvest time. Sorghum has been successfully grown in some sections.

Winter wheat is sown in September, and the spring seeding is done from the middle of March to the middle of April; the harvest commences the early part of July and continues up to the first of August. Drilling has been scarcely introduced as yet, but the system is meeting favor, and will soon be more generally adopted. The mode of culture is very simple, and promises to exhaust the land as rapidly as settlers of other new States have been able to accomplish the work, even though the rich soil of Nebraska may now appear almost inexhaustible. The general practice is to plow the ground in the fall, and harrow in the seed in the spring, though better culture is given in many instances. Our Hall reporter writes:—

All lands intended for wheat, are plowed in the autumn, as early as possible, and well manured, if it can be done. In the spring, as early as the frost is out of the ground, we sow, harrow twice or three times, according to the condition of the land, and if not too wet, roll it once. If the spring is favorable, we sow one and one-quarter bushels to the acre; if a very dry season, one and one-half bushels.

5. Common wild prairie grass, blue-joint, buffalo grass, red-top and wild timothy, with some white clover, supply the pastures of Nebraska. Kentucky blue grass and clover do well wherever cultivated, but the prairies are chiefly relied upon for the subsistence of stock during the pasturing season, which is reported to range from five to nine months in length. Otoe reports five months as the season upon which stock can feed exclusively in pastures; Dixon, Dodge, Hall, and Burt, six months; Cass, Gage, and Jefferson, seven months; Richardson, Pawnee, and Jones, eight to nine months; and Merrick runs up to ten months, our correspondent claiming that stock will live the whole year on pastures in case not much snow falls in winter. The expense of pasturing stock during this season is generally the cost of salt and herding—the highest estimate being $2.50 per head for the season, and the lowest "nothing."

6. There is an abundance of wild small fruits, such as plums, grapes, raspberries, strawberries, gooseberries, &c., but little has yet been done to test the capabilities for large fruits. Our Dixon reporter writes:—

This county is not suited to the growth of apples, peaches, or pears, as they get badly winter-killed, and do not grow natural or wild; but plums, gooseberries, currants, cherries, mulberries, raspberries, walnuts, grapes, &c., grow wild and profusely. A family will frequently make one hundred gallons of pure wine in a season. I have made twenty gallons for my own use, gathering the grapes in two days. The wine sells at from fifty cents to $2

per gallon. There is no grafted fruit cultivated here; those who have tried the experiment have failed.

Hardy apples may generally be cultivated with proper selections of varieties and care of trees. In Otoe County, according to our correspondent, fruits that succeed in the north do well. The hardier apples grow and bear well, while pears are a complete success. Peaches will yield an occasional crop, when the trees are grown in the sod, so as to check the growth of the tree and render it hardy. The small fruits all do well, except the Lawton blackberry and the raspberries which propagate from suckers, as they badly winter-kill unless thoroughly protected.

Our Dodge reporter says the hardiest fruits must be selected to prove successful, and advises the raising of seedlings, which he finds perfectly hardy.

HALL COUNTY.—Capabilities for raising fruit not very good. Apples and pears will not do well; I have tried it for the last ten years without success, although I claim to understand it. Of twelve varieties of cherries, only one kind (the Early Richmond) did well. Plums do well; also grapes, that is, the Concord and Delaware, but no tender varieties.

CORRESPONDENCE.

FORT KEARNEY, NEBRASKA, *August* 15, 1868.

FREDERICK B. GODDARD, Esq.:—

DEAR SIR: I take much pleasure in replying to all of your inquiries.

Nebraska is as fine a garden spot as can be found on earth. But a very small portion of it is poor soil, and there the grass is of such a nature that horses, cattle, and sheep thrive on it finely. There is such nutriment in it that stock will live well on it all winter, providing snows do not bury it too long. But I will reply to your inquiries in regular order as you have put them to me.

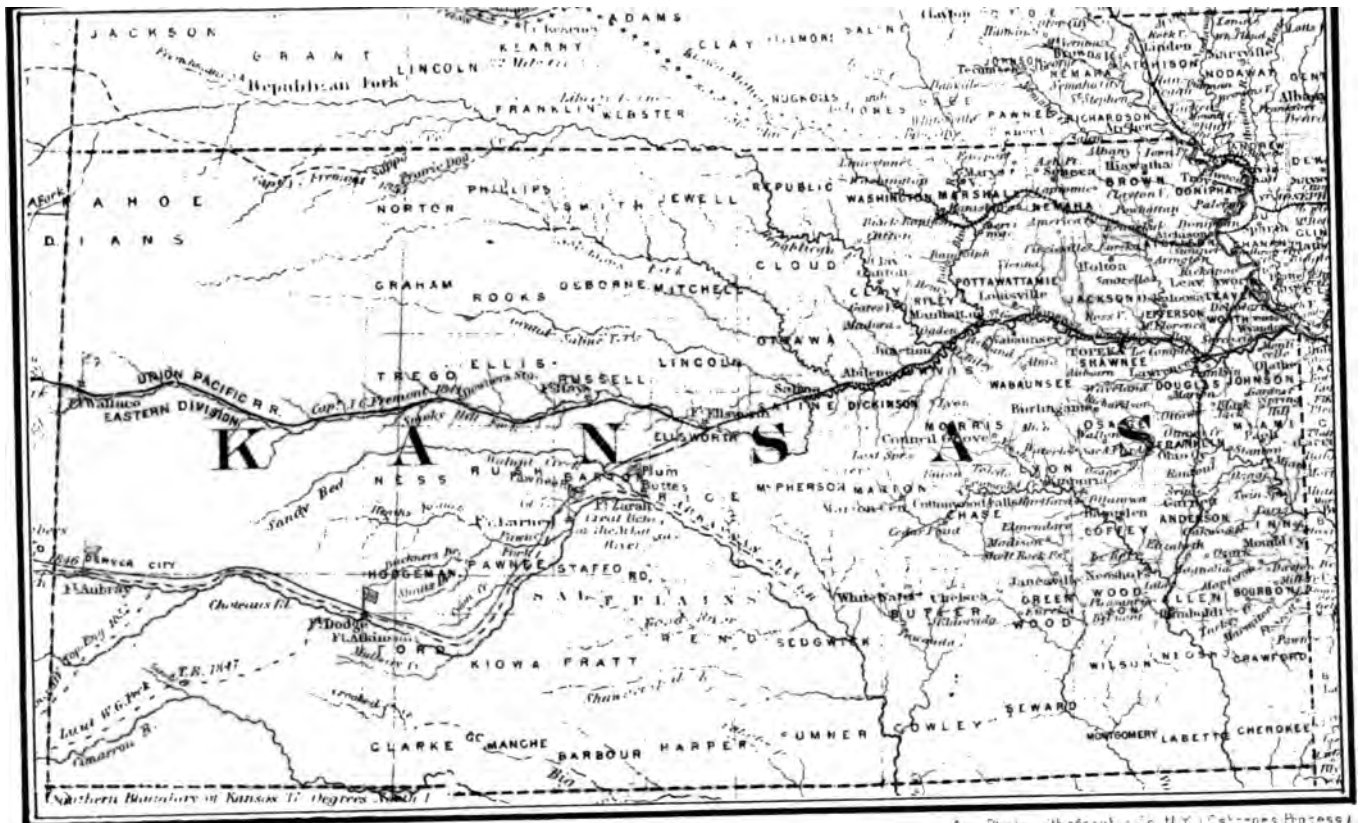
1st. The land in the section of country around Fort Kearney is a rich sandy loam, capable of producing wheat, oats, barley, corn, potatoes, and all kinds of vegetables (that grow in the same latitude elsewhere), in fine perfection. Wheat, oats, and barley are always a sure general crop. Sometimes drought, bugs, and grasshoppers have injured the potato, corn, and vegetable crops; but early vegetables are always sure, and early crops of any kind. We are not troubled with such drawbacks any more than in States east of us. When the grasshoppers do not come, our corn crops are excellent, the finest of vegetables are raised, and fruits flourish well. I have lived here twelve years and a half, and can fully judge of the average seasons and crops. The Platte Valley,

for a hundred miles and more, east and west of Fort Kearney; the valley of the Big and Little Blue rivers, and the Republican River valley, not more than fifty miles south of Fort Kearney; the Wood River valley, eight miles north of Fort Kearney; the Loup River valley north of Fort Kearney, and other smaller valleys, together with all the intervening lands, are all open to pre-emption and homestead locations. The cost of settlement is but small in comparison with some States, and advantages just as good. Good locations can be taken now within three miles of Fort Kearney, and within one mile of Kearney City. Those who come and settle soon will have the first and best opportunities, as they can select the best soil and the best situations in accordance with their desires and tastes. Railroad interests will very soon advance the value of lands in the vicinity of Fort Kearney. The following railroads are in course of construction and in contemplation to join the Union Pacific Railroad at Fort Kearney: The Midland Pacific Railroad, from Nebraska City to Fort Kearney; the Brownsville and Fort Kearney Railroad; the Atchison and Fort Kearney Railroad, or Central Branch of the Union Pacific road, and prospective road from Fort Riley to Fort Kearney. The Atchison and Fort Kearney Railroad is already finished to within one hundred and fifty miles of Fort Kearney. The grading of the Midland Pacific Railroad is already going on with west of Nebraska City. These facts I mention as encouragement to those who contemplate locating in the vicinity of Fort Kearney, and as bearing on the present and prospective price of lands.

2d. Laborers receive here from $30 to $40 per month. Supply is scarce, and demand is not great at present. On the Union Pacific Railroad laborers generally find work to do; those are retained who are most valuable. Tradesmen of all kinds get good wages in Nebraska, but there is no demand for them in this vicinity at present. As settlers come in and locate, so their services will be needed.

3d. Our climate is unsurpassed. Some seasons it is rather dry, being a drawback to late crops, but is favorable otherwise. It is a very healthy climate. No chills and fever, no summer complaints trouble us. Those who have been sickly in the Eastern States come out here and soon recruit in health and strength. The water is pure, the air is pure, and people who do not abuse their stomachs will never complain of sickness.

4th. No minerals have yet been developed in this section, although signs of coal are found on the Republican River, about fifty miles from Fort Kearney. Timber can be got by settlers for firewood. There is plenty of timber on the Republican and Blue rivers, south of Platte, and on Loup and Wood rivers, north of the Platte. East of Fort Kearney there is plenty of timber on


KANSAS
JACKSON
GRANT
KEARNY
ADAMS
CLAY
LINCOLN
Republican Fork
FRANKLIN
WEBSTER
NUCKOLLS
THAYER
JEFFERSON
NEMAHA
NODAWAY
RICHARDSON
PAWNEE
GAGE
PHILLIPS
NORTON
SMITH
JEWELL
REPUBLIC
WASHINGTON
MARSHALL
BROWN
DONIPHAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
CLOUD
POTTAWATTAMIE
RILEY
CLAY
JACKSON
ATCHISON
TREGO
ELLIS
RUSSELL
LINCOLN
OTTAWA
WABAUNSEE
SHAWNEE
DOUGLAS
JOHNSON
LEAVENWORTH
UNION PACIFIC R.R.
EASTERN DIVISION
ELLSWORTH
BARTON
RICE
MCPHERSON
MARION
MORRIS
LYON
CHASE
FRANKLIN
ANDERSON
COFFEY
NESS
RUSH
PAWNEE
STAFFORD
HODGEMAN
GREENWOOD
ALLEN
BOURBON
BUTLER
WOODSON
KIOWA
PRATT
SEDGWICK
WILSON
CRAWFORD
CLARK
COMANCHE
BARBOUR
HARPER
SUMNER
COWLEY
SEWARD
MONTGOMERY
LABETTE
CHEROKEE
Northern Boundary of Kansas 37 Degrees North
Am. Photo Lithographic Co. N.Y. (Osborne Process)

the islands of the Platte, which islands are mostly accessible by wagons, as the Platte River is generally very shallow, sometimes being almost dry for months in the year. All wise people, however, plant timber as they do corn, and then they have no further trouble. Most all kinds of trees suitable to latitude will grow here from cuttings and seeds.

5th. The crops are mostly wheat, oats, barley, corn, and potatoes. At first hand the farmer gets for wheat about $1 per bushel; oats, 75 cents per bushel, $1 delivered at the railroad; potatoes, $2.50 per bushel; corn, $1.25 per bushel; onions, $3 per bushel. Butter, 50 cents per pound; eggs, 50 cents per dozen.

6th. At present there is a market for all kinds of produce at almost any railroad station. The railroad runs on the north side of the Platte River, and at Fort Kearney is three miles from the river and six miles from the fort. The facilities for transportation are good. Teams have to be used to transport to and from the railroad. Other facilities are: Daily mail, telegraph, and express offices.

7th. As in all new countries, school and religious advantages have to grow up with settlements. We hope to have the best of such advantages before very long. The friends of education in the State are moving energetically in the matter of public schools, and from all appearances, Nebraska will be ahead of all other States in her school advantages. Churches grow up with the people according as they are religiously inclined. I trust that the temples of the Lord Jehovah may be many, and ornament the beautiful plains of Nebraska as she goes forward in her progressive career.

8th. The population is of a mixed character. Some are American born, some are English, some Irish, some from Germany, Denmark, and Sweden. To the land of Nebraska all people, of whatever clime or nationality, are invited, and all try to get along as harmoniously as possible. With good Republican institutions and form of government, wherein all people have equal rights, the State of Nebraska can truly welcome all people, of whatever land, and bid them here make their home in peace, and find rest, happiness, and joy.

The whole of your questions being now answered, I will bring my letter to a close, hoping your work may prove productive of much good, as well as a source of profit to those who have been enterprising enough to take the matter in hand.

With my best wishes,

I remain, dear sir,

Yours very truly,

MOSES H. SYDENHAM.

PERU, NEBRASKA, *July* 24, 1868.

Mr. FREDERICK B. GODDARD, New York:—

SIR: Your favor of the 17th inst. has been received. Our lands are mostly rolling prairie, *all* of which is of the very best quality for farming. Unlike almost all other prairie countries, we have *no* wet or marshy lands. Good improved farms sell for from $15 to $25 per acre; raw lands, from $3 to $10.

Farm hands get from $1 to $1.50 per day; mechanics, $2.50 to $4; either of which can usually find ready employment.

Our climate is as good, to say the least, as any in the West; winters very dry, springs seldom muddy, and summers cool and pleasant, and can not be surpassed in the West for *health*. Our crops are principally corn, wheat, and oats, with an abundance of potatoes and other vegetables generally. Wheat, new, $1 per bushel; corn, old, 50 cents; oats, 40 cents. Horses are from $100 to $150; cows, $25 to $40. We have but little coal as yet, but timber sufficient for our purposes.

We are immediately on the great Missouri River, with railroad on the east bank. We have a good common school system, with good schools generally.

In our village we have the State normal school, which is proving a great success.

We have a number of flourishing church organizations in the country, with houses of worship, such as Episcopalian, Methodist, Baptist, Presbyterian, &c.

Our country is the best watered country I ever saw, especially for stock; also good mill streams. We have in our county nine grist mills, four steam, and five water-power.

Yours truly,

D. C. SANDERS.

KANSAS.

THE early history of Kansas is so closely identified with the grave and important issues which culminated in the late Rebellion, that this chapter would be incomplete without a brief reference to the stirring events which signalized its birth as a Territory. The passage of the Kansas-Nebraska bill, and the repeal of the Missouri Compromise, attracted attention to the country lying immediately west of the Missouri River, and opposite the State of the same name. Emigrant Aid Societies were organized in Massachusetts and other New England States, and early in 1854 crowds of emigrants were hastening to the new Territory of Kansas. These were mostly representatives from the free States. The people along the Missouri State border, regarding this influx of Free-State settlers as inimical to the institution of slavery, determined to occupy the Territory themselves, and so soon as the first effort was made to organize under the laws of Congress and elect officials, trouble was engendered between these two rival factions. Voters came over from Missouri in crowds, controlling the polls in many places, and setting at naught the attempts of the people to elect their own representatives; and in frequent instances sanguinary and desperate conflicts occurred, resulting in the killing and wounding of many, and in the wanton destruction of dwellings and other property.

This condition of things continued for several years, each party struggling desperately for supremacy, until finally the Free-State men triumphed, and a Constitution was adopted forever prohibiting slavery from the limits of Kansas.

This political struggle had been watched by the people of the North and South, with thrilling interest and divided sympathies, and the result, doubtless, served to aggravate and intensify the feeling of sectional prejudice which had already,

to some extent, embittered the relations between those who approved and those who condemned slavery. It was the first positive advantage obtained by the anti-slavery element over the "peculiar institution," revealing the strength of the party organization, and foreshadowing the perils and dangers with which slavery was threatened. Like the low, soughing wind which precedes the coming tornado, the local disturbances of Kansas were only premonitions of the terrible conflict which followed.

These facts are mentioned partly because they properly belong to the early history of the State under consideration, but more particularly to illustrate the indomitable will and courage of the first settlers of Kansas, many of whom are now its leading and most influential citizens.

Kansas is one of the youngest and largest States of the Union. It lies upon the western slope of the Missouri Valley, and is bounded on the north by Nebraska, east by Missouri, south by Indian Territory, and west by Colorado. It was admitted as a State January 1, 1861, with a population of 107,000, which is now estimated at between 300,000 and 400,000, and rapidly increasing. The State has a varying length from east to west of from 344 to 408 miles, with a breadth of 208 miles, embracing an area of nearly 57,000,000 acres, of which according to the authorities of the General Land Office, 43,140,000 are yet unsold and open to settlement.

Kansas possesses the same surface characteristics as Nebraska, except that it is more extensively and more abundantly supplied with running streams. Its most thickly settled counties lie along the Missouri River front, but railroad facilities have already extended far into the interior, making easily accessible vast tracts of land, excellent for agricultural and pastoral pursuits.

Mr. A. D. Richardson, inspired by the natural beauties of Kansas scenery, thus writes of it:—

I wonder if the Almighty ever made a more beautiful country than Kansas. Those green prairies, rolling like gentle swells of

the ocean, starred and gemmed with flowers, and threaded with dark belts of timber which mark the winding streams, are a joy forever.

* * * * * *

Glancing over thousands of acres covered with long grass and dotted with groves, it appears the perfect counterpart of cultivated field and orchard. One can hardly persuade himself that he is not scouring a long settled country whose inhabitants have suddenly disappeared, taking with them houses and barns, and leaving only their rich pasture and hay fields.

* * * * * *

Wagon roads, revealing the jet black soil, intersect the deep green of graceful slopes, where waves tall prairie grass with wild flowers of blue, purple, and yellow. * * * * The sky is of wonderful clearness. Narrow belts and fringes of forest mark the winding streams. In the distance rise conical isolated mounds wrapt in the softest of veils, a dim and dreamy haze.

CLIMATE.—The climate of Kansas is healthful and temperate, comparing favorably with that of any other State in the Union. A correspondent says:—

Consumption is never known unless brought here from other States. The summer heat is tempered with a breeze from the southwest. The nights are cool. Winters short and mild, with only a few sharp cold days. Ice in the streams sufficient for summer use. Snow seldom lasts more than a day or two. Spring opens about the first of March usually, not with rain and mud, but with a dry breeze from the south, rising sometimes to a gale. In 35 years there has been but one general drought.

The seasons are usually mild, and free from great extremes either of cold or heat, the weather changing gradually as one season follows the other. The winters are short, and snow seldom falls in great quantities.

TIMBER.—As a general thing, the State is not well timbered. The growth of timber has been checked, it is believed, by the Indian fires which have so often swept over the prairies. Along the streams, chiefly, may be found the black walnut, the different oaks, soft and sugar maple, sycamore, white ash, pecan, locust, mulberry, hackberry, coffee bean, cherry, elm, and hickory. A good hedge fence can be raised in four years. Rails usually had at from $2 to $5 per hundred. Stone suita-

ble for building and fencing are convenient to nearly every quarter section.

Kansas lumber costs $25 to $40 per thousand feet at the mills. Shingles, about $6. Pine shingles, $8 to $11. Clay and sand for brick abound, and the best varieties of stone and marble.

We subjoin a portion of the late Report of H. S. SLEEPER, Surveyor-General of Kansas:—

SURFACE FEATURES.—The general surface of Kansas is a gently undulating prairie, having no marked features like those of other prairie States, except, perhaps, the diversity presented by a more rolling surface. The division of land is of two classes. First to mention is the timber and rich alluvial bottom lands, bordering rivers and creeks, the estimated area of which is ten million acres, being fully five times the amount of all improved lands in the State at the present time. To the second belongs the upland or rolling prairie, the soil of which averages from two to three feet in depth, with a subsoil of fertilizing qualities which will, by careful cultivation, prove inexhaustible. This class of land is considered, by far, preferable for the raising of grains and fruits, while the bottom land is selected for corn, hemp, vegetables, and grasses. But such is the uniform character of the general surface of Kansas, that nearly every quarter section within its limits is capable of cultivation.

Timber is confined mainly to the borders of rivers and creeks, and is not superabundant; yet its scarcity is compensated for in a great measure by the very general distribution of rock throughout the State, which is easy of access, and furnishes the best of building and fencing material.

STREAMS.—No mountain ranges, swamps, sloughs, or lakes exist in the State, except in some instances where rivers have changed their beds, leaving small lakes. Water-courses are well distributed over the State. Their usual course is south of east. Among the most important streams may be mentioned the Arkansas and Neosho on the south, the Kansas River and its tributaries in the northern part, and the Missouri River forming the eastern boundary. The descent of the Kansas River may be regarded as showing the rapidity of the water-courses of the State. From its mouth, west one hundred miles, the fall is a little over two feet to the mile; for the second and third hundred miles, about six feet to the mile; and for the last one hundred miles, about seven feet to the mile; making a total fall of over two thousand feet in four hundred miles. Water-powers are not abundant, but several are being improved on the Neosho and other smaller streams.

Such streams as rise in the mountains west have quicksand bottoms, but local streams, that rise within the boundaries of the State, have clear water, and gravel beds, but are not enduring as the mountain streams. Unfailing springs of pure, cold water, are found in nearly every locality, and good wells of water can be obtained by digging to the depth of from twenty to forty feet.

MINERALS.—The coal measures underlie fully seventeen thousand square miles of the eastern portion of the State, extending to an irregular line crossing the State from north to south, near Fort Riley. The upper stratum crops out in nearly every county in the eastern and middle portions of the State. At present, the coal veins have not been worked to any great extent, except in Leavenworth, Osage, and Bourbon counties, where it is found in inexhaustible quantity and of superior quality. * * From recent reports of surveys in the vicinity of Fort Hays and the west, I am of the opinion that from that point west, coal will be found to increase in quantity and quality. Sand-rock, suitable for building purposes, underlies the whole State of Kansas, and crops out in many localities. Lime-rock, also, is found in numerous varieties, and appears in nearly every ravine and hillside. On the Kansas River, near Fort Riley, are found inexhaustible quarries of magnesian limestone, of beautiful color, which is now being used in the erection of public buildings. * * A quarry of black marble, full of light yellow veins, has been discovered in Bourbon County. This marble receives a fine polish, and is considered valuable for ornamental purposes. White marble of various varieties is found south of the Cottonwood River, in the counties of Butler and Sedgwick.

SALT.—Under the act admitting Kansas into the Union as a State, twelve salt springs were granted, which have been located upon the tributaries of the Kansas River. Four of these springs are situated on Salt Creek, in the valley of the Solomon River; four, in an extensive salt-marsh of three thousand acres, in the valley of the Republican River; two, on a small tributary of the Republican River, still farther east, in a small marsh of three hundred acres, which, like the first-mentioned marsh, is wholly void of vegetation. Of the exact location of the remaining two this office is not advised. These springs are all leased by the State, and will soon be in operation. The brine arising from these springs has been scientifically investigated, and found to yield a large percentage of salt.

Many other springs have been discovered on the Saline River, and, doubtless, when surveys are extended westward along that stream, very extensive salines will be found. The water of the Saline River during a great portion of the year is found to be so brackish as to be unfit for culinary purposes.

Whenever the Pacific Railroad and the southwestern branch

toward Santa Fé shall have been completed, thus opening up a ready market and furnishing speedy means of transportation, it is fair to presume that Kansas will become one of the great salt-producing States of the Union.

MANUFACTURES.—Considerable attention has been paid during the last few years to the development of our manufacturing interests. Of the different branches that are now in operation, or nearly so, the following are the most prominent:—

Two woolen factories are located at Lawrence, one at Fort Scott, and one at Burlington. A paper-mill is about completed at Manhattan, for the manufacturing of all kinds of paper. Numerous flouring and saw-mills are conveniently located throughout the State. In this city a large foundery has been in successful operation for a number of years, manufacturing stoves, quartz mills, and castings for all kinds of machinery. Also, mills for the manufacturing of farm, garden, and household implements, woolen goods, flour, carriages, and wagons, and all kinds of building material, are extensively carried on.

RAILROADS.—During the past year rapid advancement has been made toward completing the already established roads, and also in forming and surveying routes for proposed roads. The liberal grants of lands that the several roads possess, together with the material aid offered by counties through which the lines pass, and the well-known ability of parties interested in them, are favorable to their completion at an early day. And with the completion of the roads established and proposed, Kansas will have as complete a system of railways as most of the Western States.

UNION PACIFIC RAILROAD, EASTERN DIVISION.*—The year 1863, dates the commencement of the main line of this road, beginning at the State line at the junction of the Kansas River with the Missouri River. In the year 1864, forty miles were completed; in the year 1865, the war prevented further progress, but in July of the same year a new company was organized, and during the year following completed seventy-nine miles of the main line, together with the branch road from Leavenworth to Lawrence, a distance of thirty-one miles. The main line is now completed, a distance of about 350 miles west of the Missouri River.

The PACIFIC RAILROAD, central branch, starting from Atchison and running west, has completed and in operation sixty miles.

The MISSOURI RIVER RAILROAD, commencing at Leavenworth and connecting with the Union Pacific Railroad, eastern division, and the Pacific Railroad of Missouri at Wyandotte, has thirty-three miles completed and in operation.

* Since the above official report from the General Land Office was published, work on these different roads has rapidly progressed, and many miles of track have been added. The constructing and projected railways of Kansas, when completed, will wonderfully facilitate the settlement and growth of the entire State.

The LEAVENWORTH, LAWRENCE AND GALVESTON RAILROAD, commencing at Lawrence, is graded to the south line of Douglas County, with iron arriving for the laying of the track to that point; distance twenty miles.

The ST. JOSEPH AND DENVER RAILROAD, running through the northern tier of counties, has fifteen miles about ready for the cars.

A contract for building and equipping the Union Pacific (southern branch) Railroad, was entered into on the twenty-third of August last. The contracting parties to build the line from its junction with the Union Pacific Railroad, eastern division, at Junction City, to the northern boundary of the Osage (Indian) reservation, near Humboldt, Kansas. Work on the line to commence on the 15th of October next, and the road completed and equipped on or before the first day of January, 1870, with a proviso extending the time of completion to 1872, in case the State fails to guarantee interest on certain bonds. From the terms of the contract, and the known ability of the capitalists who have undertaken the work, there is little doubt that the commencement and completion of this line will be in conformity with the time as expressed in the contract.

The MISSOURI RIVER, FORT SCOTT AND GALVESTON RAILROAD, from Wyandotte, south, has about twenty miles graded. The franchises of this road are of a local nature.

The LAWRENCE and EMPORIA, and ATCHISON, TOPEKA AND SOUTHWESTERN RAILROADS have each liberal franchises of land.

The ST. LOUIS AND SANTA FE RAILROAD, from Holden, Missouri, through the counties of Miami, Franklin, Osage and Lyon, Kansas, to Emporia, thence to Santa Fé, has been much discussed by people along said line, with a view of commencing operations at an early day. This road has no franchises as yet.

A preliminary survey of a road commencing at a point in the vicinity of Pond Creek, near western boundary of Kansas, and running south to Santa Fé, is being made.

The extending of the Pacific Railroad through the country heretofore occupied as their undisturbed hunting-ground has been, no doubt, the primary cause of the hostile attitude of the different Indian tribes on the Plains, and it undoubtedly will be the last effort of barbarism to beat back the advancing tide of civilization. But notwithstanding these difficulties, settlements have kept pace with the progress of the road, and points where hardly six months ago not a house marked the spot, are now occupied by flourishing towns. It is impossible to overestimate the advantage that the completion of this road will afford to the people of this district. Already thousands of heads of cattle are being shipped over this road to eastern markets, which were driven up from Texas in the early summer months, and fatted on

the nutritious grasses peculiar to western Kansas. Whenever the present Indian difficulties shall terminate, and a false and pernicious philanthropy cease to encourage idleness and vagrancy in the wandering nomads of the plains, then, within an incredibly short space of time, what was the "Great American Desert," will become the home of hardy, enterprising settlers, with their railways, cities, and towns, and countless herds of stock grazing upon the finest pasturage of the world.

The General Land Office Commissioner says of Kansas:—

The eastern half is undulating prairie, alternating with timber. The latter is generally found skirting the streams, which flow through beautiful valleys. The western part of the State is more level, the depressions more gradual, and timber less abundant. The extreme western portion forms part of a sterile belt running from the 47th parallel to New Mexico. The State is drained by a number of large rivers, affluents of the Missouri. No mountains, swamps, or marshes have been discovered. The timber consists of cottonwood, sycamore, oak, ash, hickory, walnut, hackberry, sugar-maple, sumac, and willow. The growth of timber is probably adequate to home demand, but not sufficiently abundant to form the basis of an export lumber trade.

* * * * * * *

The soil of the eastern part is excellent, there being two classes of land, the first embracing the alluvions of the river and the strips of timber. Of this class there are at least ten million acres in the State, or fully five times the amount of improved land. For the production of the heavier kinds of cereals this land is surpassed in richness by none of the neighboring States. For wheat and other small grains, the second-class lands, embracing the upland or rolling prairies, are preferred. These are covered by a soil averaging from two to three feet in depth, with a subsoil of fertilizing qualities sufficient to furnish inexhaustible fertility, if skillfully managed.

The scarcity of building timber is amply compensated by the general distribution of rocks admirable for the construction of dwellings and fences. Water-courses are well distributed. Unfailing springs of pure cold water are very abundant, and wells, furnishing copious supply, need not be sunk over twenty to forty feet.

Facts collected from old settlers show that the soil of Kansas has a remarkable power of compensating the absence of rain by its subterranean stores of moisture. The records of meteorological observations at military posts indicate that the average precipitation of rain during the months of June, July, and August, is

about one-fourth of an inch in favor of Kansas as compared with the neighboring States.

* * * * * * *

LEAVENWORTH, the largest city, is situated on the right bank of the Missouri, about a mile below Fort Leavenworth. It is surrounded by a fine agricultural country, well watered, and furnished with excellent building materials. Its churches, schools, literary publications, manufacturing and commercial institutions, are on a scale to meet the wants of a large and intelligent population, which is now 30,000 or 40,000.

LAWRENCE is a beautiful and thriving town in Douglas County, on the Kansas River, forty-five miles from its mouth. Its population is over 2,000.

ATCHISON, WYANDOTTE, and TOPEKA are promising towns. The latter is now the capital of the State. It is well located on the right bank of the Kansas River, about twenty-five miles above Lawrence, with a population of 1,500.

We find the following in a pamphlet, briefly setting forth the resources of Kansas, published by State authority:—

CLIMATE.—The climate of Kansas is, without exception, the most desirable in the United States—it is better than that, even of the same latitude, east of the Mississippi River.

The winters are short, dry, and pleasant, with but little rain or snow.

The grass is green in the forests and on the prairies until midwinter. And very often herds of horses, mules, and cattle roam at large during the entire winter, without any additional feed or care.

At the close of February we are reminded by a soft gentle breeze from the south, that winter is gone; and the grand prairies, interspersed with every variety of flowers, and dotted by numerous herds of fine stock, or perhaps a train of emigrants wending their way in search of new homes, assume their usual green robes of carpet, and present a scene of superb grandeur.

During the summer there is always a cool, refreshing breeze, which makes even the hottest days and nights pleasant and delightful. * * * * * *

Since the year 1860 the State has been blessed with an abundance of rain, and the average yield of crops has been equally as great as that of other States. The oldest inhabitants universally agree that the drought of 1860 was the only one of any consequence that ever visited Kansas.

SOIL.—The soil is deep, rich, and fertile; in the valleys extending to the depth of four feet, and resting on a clay subsoil; and upon the table-lands and broad prairies, to the depth of from

one to three feet, resting on a subsoil composed of clay and sand. The richness of the soil is demonstrated by the luxuriant growth of prairie grass which is yearly produced.

SCHOOLS.—No new State affords better facilities for educating her children than the State of Kansas. By act of Congress, sections sixteen and thirty-six in each township were donated to the State for the use of common schools; seventy-two sections for the use and support of a State university, and seventy-two sections for other educational purposes. Through the energy and efficiency of the State Superintendent, a thorough and complete organization of common schools has been perfected throughout the State, so that at present the children of no district are deprived of educational privileges.

RIVERS.

KANSAS RIVER.—The Kansas River is the largest in the State, and one of the most beautiful streams of water in the West. It is formed by the junction of the Republican and Smoky Hill, near Junction City, in the central part of the State, and flows in an easterly direction for a distance of one hundred and fifty miles through a rich, fertile valley, from three to seven miles in width, and empties into the Missouri River at Wyandotte City, the eastern terminus of the Union Pacific Railroad.

REPUBLICAN.—The Republican River comes down from Colorado, through the northwestern portion of the State, coursing in a southeasterly direction through a rich, wild region of country, for a distance of over three hundred miles.

SMOKY HILL.—The Smoky Hill derives its source from the confluence of several smaller streams in the eastern part of Colorado, and flows to the east through the central part of the State, to its junction with the Republican. Along the rich valley of this river, a daily line of stage-coaches pass from the western terminus of the Union Pacific Railroad to Denver City.

NEOSHO.—The Neosho River rises near the center of the State, and flows to the southeast through a rich agricultural and stock-growing country, emptying into Grand River, near the southeast corner of Kansas. The Neosho Valley is from three to seven miles in width, and contains some of the most beautiful, rich, and desirable lands in the State.

ARKANSAS.—The Arkansas River, collecting the snows of the Rocky Mountains, flows in an easterly direction through the southwestern part of the State, for a distance of three hundred miles.

GREAT NEMAHA.—The Great Nemaha rises in the north-central part of the State, and flows east, emptying into the Missouri River at the northeast corner of the State. There is a sufficiency of timber on its banks for all practical purposes in the country through which it passes.

OSAGE.—The Osage courses through a fine region of country in southern Kansas, about midway between the valleys of the Kansas and Neosho. The Pottawattomie and other smaller streams flow into the Osage. The valleys of these rivers contain some of the most valuable farms in the State.

BIG BLUE.—The Big Blue, from Nebraska Territory, flows to the south through the north-central part of the State, emptying into the Kansas River at the city of Manhattan.

SOLOMON.—The Solomon rises in the northwestern part of the State, flows in a southeasterly direction, and empties into the Smoky Hill, about thirty miles west from Junction City.

The source and general direction of the Verdigris, Cottonwood, Grasshopper, Grand, Saline, and all other Kansas rivers, may be seen by referring to Ream's map of Kansas. In addition to the above is the Missouri River, which washes the eastern shore of the State for a distance of over one hundred miles. This river, navigable at all times, is a source of great value to the State, and especially to Leavenworth, Atchison, Wyandotte, White Cloud, Doniphan, and other cities that stand upon its banks.

It is impossible to draw a line of distinction between different localities, the whole State being supplied with an abundance of pure, clear cold water. Besides the clear running streams and cool refreshing springs in the different localities, the best quality of water is also obtained by digging wells on the high prairies—ranging from ten to thirty feet in depth.

FORESTS.—Kansas, although a prairie State, is well supplied with almost every variety of timber. Along the entire valleys of the rivers and smaller streams, may be found the best quality of timber in sufficient abundance. The timber contained in these valleys, is from three to ten miles in width, and from one to three hundred miles in length, and consists of oak, walnut, hickory, ash, gum, elm, cottonwood, hackberry, sycamore, and every other variety that is usually found in the Western States.

The Osage Orange is used extensively for fencing purposes—its growth is so rapid that during the third year it makes a fence of the most permanent and substantial character, at a very light expense to the farmer.

PRODUCTS.—The following table shows the average yield of produce per acre:—

Corn,	from	50	to	70	bushels.
Wheat,	"	20	"	40	"
Barley,	"	40	"	70	"
Oats,	"	40	"	80	"
Rye,	"	30	"	50	"
Potatoes,	"	100	"	300	"
Sorghum,	"	100	"	300	gallons.
Hungarian Hay,	"	3	"	5	tons.
Prairie Hay,	"	2	"	4	"

Tobacco, hemp, flax, cotton, &c., are also raised in large quantities.

The strictest attention is being paid to the culture of fruit. Almost every farmer has a fine growing orchard, consisting of apple, peach, pear, plum, and cherry trees, together with every variety of grapes and other fruit usually grown in the South and West.

The prairies and forests abound in wild fruits, such as grapes, plums, strawberries, blackberries, raspberries, gooseberries, currants, paw-paws, crab-apples, &c.

Stock.—Kansas is destined to become one of the greatest stock-growing States in the West. Her rich soil, broad prairies covered with fine heavy grass, which during the fall months is cured by the sun into hay, the abundant supply of pure water, the easy and cheap facilities for procuring hay and other forage, the dry, mild, short winter seasons; and the gentle refreshing showers of summer, are only a few of the advantages afforded those engaged in this important enterprise.

The plague and other contagious diseases so prevalent among stock in other States, are never known in Kansas, except when occasionally brought with herds from abroad.

Wool-growing is rapidly becoming one of the most extensive and profitable branches of industry. During the present year large herds of sheep have been driven to the State from Ohio, Michigan, Indiana, Illinois and Iowa, while arrangements have been made for bringing many more during the ensuing year. The facilities for raising cattle are equally great, and the business almost as profitable as that of growing wool. The fine herds of cattle and horses owned by the Indians in southern Kansas and the Indian Territory, feeding on the prairie during the entire winter, prove conclusively that Kansas, as a stock-raising State, is unsurpassed.

In the central and western portions of the State millions of buffalo, deer and antelope roam upon the boundless prairies; supported during the winter by a fine delicate grass cured into hay. Where these wild animals subsist, there can be no difficulty in raising domestic stock, since fifty sheep, or five English cattle can be supported on what would be necessary for the sustenance of one buffalo.

The State also abounds in a great variety of other wild game such as bears, wolves, wild-cats, raccoons, rabbits, otter, minks, beaver, muskrats, prairie chickens, turkeys, geese, ducks, pigeons, quails, &c.

PRICE OF UNIMPROVED LANDS IN KANSAS, SOIL, CROPS, ETC.

From the returns at hand we may fairly estimate the advance in price of farm lands in the settled counties of Kansas, at not

less than 150 per cent., as compared with the census values of 1860. The lowest estimate being 25 per cent. for Nemaha, and the highest 500 per cent. for Marshall, Washington, and Saline counties. Pottawattomie and Butler report 300 per cent. advance; Marion, 200 per cent.; Linn, Johnson, Doniphan, Clay, Osage, Chase, Woodson, 100 per cent.; Jackson and Franklin, 80 to 85 per cent.; Allen, Miami, Wyandotte, and Leavenworth, 40 to 50 per cent.

In Linn County, the location of the main trunk line railroad from the northern lakes to the Gulf of Mexico, our correspondent says, the price of lands has advanced generally 20 per cent. within the last few months. In Marshall, farm lands purchased at Government prices in 1860, now sell at $5 to $20 per acre, according to the quantity under cultivation, and the real estate value of the county is claimed to be at least five times that of 1860; and the same facts are true of Washington County and Saline. The Union Pacific Railroad, E. D., running through the county. Bourbon reports an increase of from $2 to $10 per acre.

Unimproved, or wild lands, are held at figures ranging from the Government price for public lands up to $10 per acre.

In *Bourbon County* the average is reported at $3.50 per acre; soil, rich black loam, averaging 2½ feet deep, adapted to the growth of all kinds of grain raised in the Northern States. *Allen County*, $5 per acre, entirely prairie, the timber being all located, and worth 25 dollars per acre. *Linn County*, $4 to $8 for prairie; $8 to 20 for timber, principally in the western part of the county, and quality up to the average of the country. *Miami County*, $3 to $15 per acre. The prairies are undulating, and classed as bottom, second bottom, high prairie, and mounds, and are generally susceptible of the highest cultivation. *Franklin County*, $3 per acre; prairie, some of excellent quality, but distant from timber and water; other lands stony and bluff, and only fit for pasture. *Johnson County*, about $6 per acre; soil, mostly black loam, 15 to 24 inches deep, resting on a yellow clay subsoil.

WYANDOTTE COUNTY, $10 per acre. Our correspondent says: This county is located between the Missouri and Kansas rivers, and is the best timbered in the State. The Missouri Pacific Railroad and the Union Pacific Railroad, E. D., pass through the county in such a manner that no part of the county is more than ten miles from railroad, giving a good market for every thing our farmers may raise, whether grain, vegetables, fruit or stock. The land is unsurpassed for fertility; about one half the county is heavily timbered, the remainder prairie. The prairie portion is in the Delaware Reserve, and has recently been purchased from the Indians, and is now in the market.

LEAVENWORTH COUNTY, $6 per acre; generally rolling prairies,

belted at regular intervals of one to one and a half mile with oak, walnut, hickory, elm, cottonwood, and pine timber. Soil, a deep, rich, sandy, vegetable mold, capable of yielding enormous crops of corn, pasturage, all the cereals, grass, fruits, &c., suited to the latitude.

Jackson County. About $5 per acre. Very productive; undulated prairie, and alluvial creek bottoms. Streams skirted with timber. *Doniphan County*, $3 to $15 per acre. Soil superior; adapted to all small grains, especially for hemp and corn, also for root crops. *Nemaha County*, high rolling prairie, capable of producing all kinds of grains and fruits suited to that locality. *Pottawattomie County*, $5 per acre; sandy loam, adapted to all kinds of grain. *Marshall County*, mostly rolling prairie, splendid wheat land. *Washington County*, $1.25 to $5 per acre; black loam, suited to cultivation of corn, wheat, oats, barley, &c. *Clay County*, $3 per acre; bottom lands principally suited to cultivation; uplands have a rich soil, and in wet seasons are preferable to the bottoms for small grains, but are chiefly used for grazing, affording an abundance of grass, and unlimited range, well fitted for stock-raising. *Saline County*, $2,50 per acre; common prairie, bottom and upland. *Marion County*, $3 per acre; good bottom or table-lands, with plenty of water; timber rather scarce, but plenty of good rock, both lime and building stone; lands of best quality.

Butler County. Bottom lands $5; mostly in the hands of settlers; the high or ridge lands are owned by speculators, the old settlers thinking them almost worthless. *Chase*, $3; valley and upland prairie, clay, intermixed with sand and vegetable matter, producing the cereals and root-crops without artificial manure. *Osage*, from $1 up to $20; average $3.50, consisting of timber lands with running water, second bottom or middle lands, second bottom prairie with running or standing water, upland prairie with ravines and buffalo wallow or thin clay lands. *Woodson*, $2 to $6; mimimum price of school lands $3 per acre; rich, sandy, rolling prairie, capable of producing two tons of wild grass to the acre, 37½ bushels of oats, and 22 bushels of wheat. There is still a vast area of public lands in Kansas held at Government prices, the amount in 1860 reaching 50,265,130 acres, against less than 2,000,000 acres taken up in farms.

Coal is found in Bourbon, Allen, Linn, Miami, Franklin, Leavenworth, Jackson, Doniphan, Nemaha, Pottawattomie, Washington, Clay, Osage, Woodson, and other counties, and in some districts in great abundance, though as yet, has been but slightly developed. In Bourbon, coal underlies the whole extent of the county, the veins varying in thickness from 18 inches to 4 feet, cropping out on the surface in many places, and said to be of the best quality. In Allen and Linn counties, the veins are from 2

to 6 feet thick, awaiting development. Our Osage reporter says:—

A seam of coal averaging about 20 inches in thickness extends from the northeast to the southwest corner of our county, about 30 miles, and from 2 to 4 miles in breadth. It crops out in a thousand points, and is worked in at least one hundred places. It is worth $5 per ton delivered at Burlingame.

A similar vein crops out at various points across the county of Woodson. Limestone and several varieties of building stone abound in many counties, supplying a cheap and valuable substitute for timber in fencing and building purposes. In this connection our Miami correspondent writes as follows:—

We have excellent stones for fencing and building, and they are so placed in the mounds that they occupy but little space, yet they are upon or near every quarter section, and can be seen at a distance as they project from the top of the mound. These stones are of about the right size and thickness to make a very nice and durable wall or fence, and are easily hauled down hill over the smooth surface of the prairie. These fences, when built of the white and gray limestone and brown sandstone, are in beautiful contrast to the rich dark green verdure of these lands. I have on my Stonewall farm 1,700 rods of fence, mostly of limestone, built within the past seven years with my own hands.

Our Leavenworth correspondent says:—

We have a soft sand rock which hardens on exposure to the air, very light, porous, and strong enough for building purposes, and makes the dryest house ever built, consequently the warmest in winter, and pre-eminently the healthiest dwelling known. I have tested this rock, and speak of what I know. Very little is yet known of its valuable qualities, but in time they will be appreciated. Fences can be made of rare excellence, and at reasonable prices, that will endure and harden for ages.

Building stone is abundant in Chase, Marshall, Pottawattomie, Osage, Woodson, and various other counties, the varieties found in Woodson, being of a beautiful white texture, capable of a fine, smooth polish, and is suitable for tables, mantels, tombstones, &c., and so perfectly stratified as not to vary one-fourth of an inch in thickness in blocks 10 by 12 feet square, and these strata range from 2 to 18 inches in thickness. The supply is said to be almost unlimited. In Bourbon a species of black marble abounds, easy of access, and claimed to be equal to the best Italian marble. Lead is found in Linn and Bourbon; salt in Pottawattomie, Miami, Doniphan, Saline, &c.; feldspar in Washington; gypsum in Marshall and Saline. Gold is reported in Pottawattomie, but extent not developed.

There is much superior hard-wood timber in Kansas, but generally there is little more than is required for local uses, while

in some counties there is a positive dearth of wood, though in such localities forest trees may be rapidly grown, and their culture is being encouraged by the legislature of the State. Our Allen County correspondent reports the finest quality of black walnut, oak, hickory, hackberry, &c., many of which will make 4,000 feet of inch lumber. Wyandotte claims to be the best timbered county in the State, and under the demand for wood, land selling for $40 per acre is paid for by the wood alone. The bottoms of the Missouri and Kansas valley produce immense quantities of the yellow cottonwood timber for fencing and common building purposes, selling at $15 to $20 per thousand.

Corn, wheat, oats, potatoes, and hay, are the crops of general cultivation, the first-named being the great staple product—the crops of 1866 being estimated as follows: Corn, 6,527,368 bushels; wheat, 260,465 bushels; oats, 200,316 bushels; potatoes, 243,514 bushels; buckwheat, 20,402 bushels; barley, 7,255 bushels; rye, 4,548 bushels; hay, 123,082 tons; tobacco, 22,263 pounds. More attention is being given to wheat, and as the soil and climate are entirely favorable to this culture, there will not long exist so great a disparity between the total amounts of the two leading crops. Corn has been more largely grown in some sections because readily turned to money by selling at Government posts, &c. Our Doniphan reporter says:—

Corn, hemp, and potatoes, are the principal crops in this county, but wheat, oats, and barley, do well. An average corn crop is from 40 to 50 bushels per acre, but frequently 75 to 80 bushels are raised under fair cultivation. Our corn is mostly put into beef and pork, and thus made profitable at present prices.

Another correspondent in this county says:—

Corn has this year averaged 60 bushels per acre, and this is about an average year for the crop. A few years since I raised 83½ bushels to the acre, and sold the crop for 50 cents per bushel, but this was an extra yield.

In Jackson, stock-raising is considered the most profitable branch of farming operations. Our Saline reporter writes:—

Corn is the principal crop as yet, because most profitable, there being no good mills for making flour. Our country is better for wheat, rye, oats, and barley.

In Marshall "it is not uncommon for persons here to take wild land and pay for breaking and fencing, and the price of the land, from the first crop." Hops, castor-beans, and flaxseed have been successfully cultivated in Johnson County, and our reporter thinks the crops will be trebled the coming season. From Franklin our reporter writes:—

Corn, wheat, potatoes, and Hungarian grass, are the principal crops. Cotton, of fine texture, was cultivated to some extent during the year. The great detriment to the productiveness of

of our county is skimming the surface. Deep plowing is the only remedy against drought. In 1860, the "dry year," I raised 300 bushels of corn. I plowed my corn as in ordinary years; some persons thought this labor lost. Winter came, and this class of persons had no corn, but received "aid" which the charity of other States sent to Kansas.

Sorghum is a valuable and sure crop, but is not largely cultivated. In Wyandotte and Leavenworth, vegetables and fruits are largely grown, and find a ready market.

Winter wheat is generally sown from the middle of September to the first week in October; spring varieties during the month of March; while the harvest commences the latter part of June and extends to the middle of July for the spring-sown crop. A very small proportion of the acreage is drilled, in many counties none at all, though our reporters anticipate the early adoption of the drilling system. As in all the new States, the culture of wheat in Kansas is upon the principle that the soil is inexhaustible and requires little assistance from the farmer for the production of a full crop. In Marshall, they often harrow in wheat without plowing upon ground that has been used for corn, and our correspondent says:—

If land has been broken in the fall, we harrow in the wheat in March, and get a good crop. If farmers would take more pains, this county would excel in wheat production.

In Clay County, the ground is plowed, sown broadcast, and harrowed, and the harvest awaited. Our Miami reporter writes:—

The crop, when sown broadcast, and harrowed in, is 15 to 25 bushels to the acre, but we have raised from 20 to 45 bushels by sowing one and a half bushels, and putting it in with double shovel, or with a drill.

In most of the counties the cost of pasturing stock does not exceed the cost of salt and herdsmen, cattle generally subsisting upon the wild grasses of the prairie from seven to ten months, and in some localities little feeding is necessary during the whole year; but where foddered during the winter, the estimated cost ranges from $3 to $8 only per head.

In Allen County, thousands of horses and cattle live on the prairies the year round without feed.

Our reporters in all sections of the State speak favorably and confidently of the capabilities of Kansas in fruit production, though in many counties the orchards are too young to return profits as yet, but are rapidly coming into bearing. All the fruits suited to the latitude are successfully grown.—*April*, 1868, *Report of the Department of Agriculture.*

The following are copies of, and extracts from, some of the

many letters we have received from Kansas, in response to our inquiries:—

STATE OF KANSAS, OFFICE OF ADJUTANT-GENERAL,
TOPEKA, *July* 31, 1868.

DEAR SIR: Mr. Giles referred your letter to this office. I send you the inclosed. Plenty of good land under homestead and pre-emption. Beef cattle 2 to 3 cents per lb., gross. Sheep, $2 to $5. Corn, 40 cts. Wheat, $1.50.

LABOR.—Mechanics, $3 to $5; common, $2 to 2.50.

An abundauce of good bottom land can be obtained at from $2 to $15, according to locality.

Very truly yours, J. B. McAFFEE, Adj't-General.

F. B. GODDARD, Esq.

(*From Leavenworth, July* 27, 1868.)

* * * Lands have found more takers, and have raised in price more since January, than for many years previous. The lands open to purchase, or pre-emption, in Kansas are No. 1, but very distant from the river. Good lands can be bought near No. 1 markets, on fine roads, well watered and timbered, at five dollars per acre, and from that on to twenty. Labor commands $2 per day now, and good mechanics receive $5 per day. A healthier climate does not exist. Limestone and sandstone are found everywhere. Coal is abundant, wood plenty and increasing. The crops are better this year than I have seen them in my eleven years' residence. Our wheat and oats are harvested over a month since. Corn is abundant. Hedge fences do splendidly. Our school system is magnificent. There are schools in every section of the State, and the same may be said of churches. The roads (natural) are very fine, and the farmer can find a good market. Two railroads traverse the State from east to west, and the farmer can get good lands on their line. The majority of the farmers are Americans from Ohio, Illinois, Indiana, Pennsylvania, and New York. There are a great many Germans also, and many Irish. * * *

Truly yours, A. F. CALLAHAN.

(*From Leavenworth, July* 23, 1868.)

* * * Coal underlies the whole State; inferior qualities near the surface, but strata 600 feet deep. Marble abundant in south part of State. * * Population all nationalities—a Babel of tongues. * * Leavenworth City contains 32,000 inhabitants, is the metropolis of the State, in a flourishing condition, and bids fair to become a large city. Mechanics' wages, $3 to $5 per day.

(*From Fort Scott, Bourbon County, July* 23, 1868.)

Yours of 16th received, &c., &c. * * * * The soil of Bourbon County and southern Kansas generally, is rich, rolling prairie; good timber along the streams; corn averages 40 bushels to the acre; wheat, 25 bushels; oats, 50 to 60; potatoes, 100 to 150. Improved lands in Bourbon County, $10 to $25; unimproved, $2 to $10, according to locality. * * * Carpenters and masons get $3 to $5 per day, and are in demand. Day laborers, $1.50 to $2; farm hands, $18 to $30 per month, and *this class of help can get employment at any time.* * * We have the finest coal beds in the Union; also iron ore in great abundance. A few miles southeast of here is a vein of coal 16 feet below the surface, 8 feet thick, equal to the cannel coal of Pennsylvania. None of these veins are worked, as the surface coal is much more convenient for farmers who supply the market. Two years ago, at Kansas City and Leavenworth, coal brought 25 cents per bushel, while ours readily brought 80 cents to $1. Wheat is now worth, per bushel, $1.25 to $1.50. Choice flour retails at $4.50 per 100 lbs. We are 80 miles from railroad, but will have three lines completed within two years. At present the immigration absorbs all our surplus produce. * * We have excellent school and religious advantages. * * Majority of our people native born; many Germans and a few Irish.

We want settlers and workers, not speculators.

Very respectfully,

VAN FOSSEN & BRITTON, Bankers.

FREDERICK B. GODDARD, Esq.

(*From Paoli, Miami County, July* 24, 1868.)

* * Our county is rapidly settling with an enterprising population, principally from Ohio, Indiana, Iowa, Illinois, Wisconsin, &c., &c. Plenty of unoccupied land from $3 to $6 per acre. The few Indians in this part of Kansas are preparing to remove to their new purchase in the Indian Territory. The Kansas City and Galveston Railroad runs through our county, and will reach our town by January next. All that we can raise is wanted by the new-comers amongst us.

(*From Burlington, Coffey County, August* 1, 1868.)

Limestone soil. * * Lands from $5 upward. Good climate; very healthy. *We have to kill a man to start a graveyard.* Population mixed; social; not much aristocracy.

(*From Manhattan, Riley County.*)

* * Central point of the rich valleys of the Blue and Kansas rivers and their tributaries, whose bottoms furnish a broad expanse of farming land, well supplied with timber, while the rolling country between the streams is well adapted to agricultural and grazing purposes.

(*From Burlingame, Osage County, July* 21, 1868.)

* * * * We have more coal than any county in the State. Lands first-class for farmers and graziers; price, unimproved, $2 to $8. * * We have several large cheese factories here that are very profitable. * * Climate, schools, religious advantages, &c., good.

(*From Junction City, July* 21, 1868.)

* * * There is but little good Government land near this place; has been subject to private entry, and of course the best has been entered by speculators. About forty miles from here is the Republican Valley, and about sixty miles from here are the Smoky Hill, Solomon, and Saline valleys. There is plenty of good land to be had under the homestead and pre-emption laws only. * * The majority of the people of western Kansas are Americans; is settling up rapidly with Germans and Swedes.

Within twenty miles on either side of the railroad, in this county, the settlers can only get eighty acres under the *homestead act*, or pre-empt one hundred and sixty acres on an even section, at $2.50 per acre. Outside the limits he can homestead one hundred and sixty acres, or pre-empt the same amount at $1.25 per acre.

One great advantage western Kansas has is, that none of the Government land is subject to private entry, and can only be got by actual settlement.

The crops in this county are principally wheat and corn, and are generally good; but this year they are almost a failure on account of the drought and heat. The upland in this country is very good wheat land, if cultivated properly. The bottom land makes the best corn land.

Hoping the above will prove satisfactory, we remain, yours truly,

JAS. SHUTER & CO.

Rainy River
Rainy Lake
Red Lake
Lake of the Woods
Hunters I.
Vermilion L.
Big Fork L.
Detroit
Douglas
Traverse
Pope
Stearns
Benville
Wilkin
Otter Tail
Becker
Clay
Wadena
Cass
Crow Wing
Aitkin
Carlton
Pine
Kanabec
Mille Lacs
Isanti
Chisago
Pennington
Polk
Norman
Mahnomen
Clearwater
Hubbard
Wadena
Todd
Morrison
Benton
Sherburne
Anoka
Ramsey
Washington
Hennepin
Wright
Sibley
Nicollet
Le Sueur
Scott
Carver
Dakota
Goodhue
Wabasha
Olmsted
Winona
Houston
Fillmore
Mower
Freeborn
Dodge
Steele
Rice
Goodhue
Pierce
Polk
Dunn
Pepin
Buffalo
Jackson
Martin
Faribault
Blue Earth
Waseca
Le Sueur
Rice
Watonwan
Cottonwood
Murray
Nobles
Rock
Pipestone
Lincoln
Lyon
Lac qui Parle
Yellow Medicine
Chippewa
Swift
Kandiyohi
Meeker
Wright
Hennepin
Carver
Scott
Rice
Goodhue
Wabasha
Olmsted
Winona
Houston
Fillmore
Mower
Freeborn
Dodge
Steele
Rice
Goodhue
Pierce
Polk
Dunn
Pepin
Buffalo
Jackson
Martin
Faribault
Blue Earth
Waseca
Le Sueur
Rice
Watonwan
Cottonwood
Murray
Nobles
Rock
Pipestone
Lincoln
Lyon
Lac qui Parle
Yellow Medicine
Chippewa
Swift
Kandiyohi
Meeker
Wright
Hennepin
Carver
Scott

MINNESOTA.

MINNESOTA derives its name from two Indian words signifying "sky-tinted water," referring to the numerous crystal streams and lakes which mirror the soft blue of its skies. These lakes are a peculiar feature, and form one of the characteristic charms of the State. They vary from one to thirty miles in diameter, the smaller class being most numerous. They are "generally distinguished, also, for their clear, white, sandy shores, set in gentle grassy slopes, or rimmed with walls of rock, their pebbly beaches sparkling with carnelians and agates, while the oak grove, or the denser wood which skirts the margin, completes the graceful and picturesque outline."

GEOGRAPHICAL FEATURES.—Minnesota is one of the Northwestern States, lying between British America on the north and Iowa on the south, Lake Superior and Wisconsin on the east, and on the west the Territory of Dakota. Its estimated area is about 84,000 square miles, or nearly 54,000,000 acres, giving it a front rank among the States in point of size.

The State lies nearly in the center of the continent, and occupies the summit of a vast convex plateau, if we may use the expression, elevated a thousand feet or more above the level of the sea. Here rise three of the largest river systems of North America—the Mississippi; the Red River, flowing into Lake Winnipeg; and the St. Lawrence, which forms an outlet to the sea for the surplus waters of the great lakes, the largest and most westerly of which, Lake Superior, washes a portion of the eastern boundary of Minnesota.

HISTORICAL OUTLINE.—There is little of special interest in the early history of Minnesota. The larger portion of its present area was ceded to the United States by France in the year 1803, and soon after explored by General Pike; subse-

quently by Fremont, Long, and other military officers. Fort Snelling, five miles above St. Paul, was built in 1820. Comparatively little was known, however, in these early days, of the vast regions of the Northwest. Other than military men, the few whites who had penetrated them were trappers and traders, who, for the sake of gain or adventure, were willing to undergo privations, and brave the perils of torture and death at the hands of the red barbarians of the forest.

On the 3d of March, 1849, the Territory of Minnesota was organized, including within its limits the present Territory of Dakota. The total population at this time was but 4,680. St. Paul, then containing but 840 inhabitants, was designated as the capital. It had received its evangelical name from a little log chapel built by a worthy Catholic missionary, and dedicated to St. Paul. Prior to this time it had flourished under the name of "Pig's Eye!"

Before the new organization was fairly proclaimed, a newspaper was issued at St. Paul, and steamboat lines were soon in operation. With a devotion to the interests of education which has ever since characterized the people of Minnesota, the "solid men" of the embryo State took in hand the subject of Common Schools. From this time to 1857, Minnesota advanced rapidly in population and development; immigration poured in, villages and towns sprang up, and land speculation was rampant. In the full tide of this apparent prosperity came the financial revulsion of 1857. The immediate result was a general depreciation of values, with consequent business stagnation and distress. Immigration ceased, and the rapid growth of the Territory was arrested. The later consequences of the crisis have, however, shown that it was a "blessing in disguise." Inflated ideas of sudden wealth without labor, were dispelled. The speculator's occupation was gone, and the energies of the people were directed to those pursuits which are the sources of real prosperity to every commonwealth—agriculture and manufactures. Previous to this era, Minnesota had imported breadstuffs, but

she now laid the foundations of her later development as one of the great grain-producing States of the Union.

In May, 1858, Minnesota was admitted as a State. From this time her growth was vigorous and reasonably rapid until the breaking out of the Rebellion. With a population of only 175,000 at this period, her record shows that she sent forth from her grain-fields, workshops, and pineries, 24,000 brave men to battle for the preservation of the Union.

In the summer of 1862, one of the most terrible Indian massacres upon record occurred on the western frontiers of the State. More than a thousand men, women, and children, were barbarously butchered and mutilated by these inhuman savages. The whole land was thrilled with horror, and a large military force was at once sent out, the Indians were routed, their country laid waste, and thirty-eight of their leaders were hung. The remainder of the tribe were removed to a reservation beyond the Missouri River. No further apprehension need be felt in Minnesota from Indians. As perfect security now reigns throughout the State as in New England.

The present population of Minnesota is estimated at between 400,000 and 500,000. Her increase during 1867, was 90,000, and one of her prominent statesmen predicts that in 1870 she will have attained a population of 700,000. Minnesota is now in the full tide of prosperity. Her progress is substantial as well as rapid. Her towns and cities are full of life and enterprise—her farmers are contented and prosperous. Manufactories are multiplying, and railroads are being rapidly built to every portion of the State. With a climate unsurpassed for healthfulness; a soil unparalleled in this country in its yield of the staple cereals; vast forests of timber, and immense water-power—it will be strange indeed if Minnesota does not soon fulfill her prophecy to become, in population, wealth, and influence, among the very foremost States of the American Union.

We are indebted to Gov. Wm. R. Marshall, of Minnesota,

for an admirably prepared pamphlet recently published by the State, entitled, "Minnesota; Its advantages to Settlers." It is from the pen of Col. GIBART HEWITT, of St. Paul. The following are extracts:—

PHYSICAL CHARACTERISTICS OF THE STATE.

Although Minnesota is not a mountainous country by any means, its general elevation gives it all the advantages of one, without its objectionable features. Being equidistant from the Atlantic and Pacific oceans, situated on an elevated plateau, and with a system of lakes and rivers ample for an empire, it has a peculiar climate of its own, possessed by no other State.

The general surface of the greater part of the State is even and undulating, and pleasantly diversified with rolling prairies, vast belts of timber, oak openings, numerous lakes and streams, with their accompanying meadows, waterfalls, wooded ravines, and lofty bluffs, which impart variety, grandeur and picturesque beauty to its scenery.

The State may be divided into three principal districts. In the northern and western part of the State an exception to its general evenness of surface occurs in an elevated district, which may be termed the highlands of Minnesota. This district, resting on primary rocks, is of comparatively small extent—16,000 square miles—and covered with a dense growth of pine, fir, spruce, &c.; it has an elevation of about 450 feet above the general level of the country, and is covered with hills of diluvial sand and drift, from 85 to 100 feet in height, among which the three great rivers of the American Continent—the Mississippi, St. Lawrence, and Red River—take their rise. The temperature of this district is from five to eight degrees lower than that of the rest of the State. Although possessing some good land, its principal value consists in its immense forests, and its rich mineral deposits of copper, iron, and precious metals.

The valley of the Red River forms another district, larger than the highlands, containing 18,000 square miles, with a deep, black soil composed of alluvial mold, and rich in organic deposits. This district produces the heaviest crops of grain, especially wheat, of any section in the United States. It has a subsoil of clay, is but sparsely timbered, with but few rivers or lakes, and is not therefore so well drained as other parts of the State.

The Mississippi valley comprises the third district; it contains about 50,000 square miles, or about three-fifths of the whole State. It is the "garden spot" of the Northwest, and comprises one of the finest agricultural districts in the world. Its general characteristics are those of a rolling prairie region, resting on

secondary rocks; it is unusually well drained, both by the nature of the soil, which is a warm, dark, calcareous and sandy loam, and the innumerable lakes and streams which cover its surface with a perfect network. It is dotted by numerous and extensive groves and belts of timber. These main districts are also subdivided into smaller ones by the valleys of the numerous streams which intersect them; but space does not admit of a detailed description.

Rivers and Streams.—The Mississippi River, 2,400 miles long, which drains a larger region of country than any stream on the globe, with the exception of the Amazon, rises in Lake Itasca, in the northern part of Minnesota, and flows southeasterly through the State 797 miles, 134 of which forms its eastern boundary. It is navigable for large boats to St. Paul, and above the Falls of St. Anthony for smaller boats for about 150 miles farther. The season of navigation has opened as early as the 25th of March, but usually opens from the first to the middle of April, and closes between the middle of November and the first of December. In 1865 and 1866, steamboat excursions took place on the first of December, from St. Paul, and the river remained open several days longer; in 1867 until December 1st.

The principal towns and cities on the Mississippi in Minnesota, are, Winona, Wabashaw, Lake City, Red Wing, Hastings, St. Paul, Minneapolis, St. Anthony, Anoka, Dayton, Monticello, St. Cloud, Sauk Rapids, Little Falls, Watab.

The Minnesota River, the source of which is among the Coteau des Prairies, in Dakota Territory, flows from Big Stone Lake, on the western boundary of the State, a distance of nearly 500 miles, through the heart of the southwestern part of the State, and empties into the Mississippi at Fort Snelling, 5 miles above St. Paul. It is navigable as high up as the Yellow Medicine, 238 miles above its mouth, during good stages of water. Its principal places are Shakopee, Chaska, Carver, Belle Plaine, Henderson, Le Sueur, Traverse des Sioux, St. Peter, Mankato, and New Ulm.

The St. Croix River, rising in Wisconsin, near Lake Superior, forms about 130 miles of the eastern boundary of the State. It empties into the Mississippi nearly opposite Hastings, and is navigable to Taylor's Fall, about 50 miles. It penetrates the pineries and furnishes immense water-power along its course. The principal places on it are Stillwater and Taylor's Falls.

The Red River, rises in Lake Traverse, and flows northward, forming the western boundary of the State from Big Stone Lake to the British possessions, a distance of 380 miles. It is navigable from Breckenridge, at the mouth of the Bois de Sioux River to Hudson's Bay; the Saskatchewan, a tributary of the Red River, is also said to be a navigable stream, thus promising an active commercial trade from this vast region when it shall

have become settled up, *via* the St. Paul and Pacific Railroad, which connects the navigable waters of the Red River with those of the Mississippi.

Among the more important of the numerous small streams are Rum River, valuable for lumbering; Vermilion River, furnishing extensive water-power and possessing some of the finest cascades in the United States; the Crow, Blue Earth Root, Sauk, Le Sueur, Zumbro, Cottonwood, Long Prairie, Red Wood, Waraju, Pejuta Ziza, Mauja, Wakan, Buffalo, Wild Rice, Plum, Sand Hill, Clear Water, Red Lake, Thief, Black, Red Cedar, and Des Moines rivers; the St. Louis River, a large stream flowing into Lake Superior, navigable for twenty-one miles from its lake outlet, and furnishing a water-power at its falls said to be equal to that of the Falls of the Mississippi at St. Anthony, and many others, besides all the innumerable hosts of first and secondary tributaries to all the larger streams.

* * * * * *

LAKES.—Lake Superior, the largest body of fresh water on the globe, forms a portion of the eastern boundary of Minnesota, giving it 167 miles of lake coast, with one of the best natural harbors and breakwaters, at Du Luth, Minnesota, to be found on any coast. When the Superior and Mississippi Railroad is completed, connecting the commercial center of the State with Lake Superior, a large lake commerce will spring into existence.

Besides, the whole surface of the State is literally begemmed with innumerable lakes, estimated by Schoolcraft at 10,000. They are of all sizes, from 500 yards in diameter to 10 miles. Their picturesque beauty and loveliness, with their pebbly bottoms, transparent waters, wooded shores and sylvan associations, must be seen to be fully appreciated. They all abound in fish, black and rock bass, pickerel, pike, perch, cat, sunfish, &c., of superior quality and flavor; and in the spring and fall they are the haunts of innumerable duck, geese, and other wild fowl. In some places they are solitary, at others found in groups or chains. Many are without outlets, others give rise to meandering and meadow-bordered brooks. These lakes act as reservoirs for water, penetrating the soil, and by their exhalations giving rise to summer showers during dry weather. Prof. Maury says of Minnesota, that although far from the sea, it may be considered the best watered State in the Union, and it doubtless owes its abundance of summer rains measurably to this lake system.

* * * * * *

FORESTS.—In the northern part of the State is an immense forest region estimated to cover upward of 21,000 square miles, constituting one of the great sources of health and industry of the State. The prevailing wood of this region is pine, with a considerable portion of ash, birch, maple, elm, poplar, &c. West of the

Mississippi, lying between it and the Minnesota, and extending south of that stream, is the Big Woods, about 100 miles in length and 40 miles wide. This district is full of lakes, and broken by small openings. The prevailing woods are oak, maple, elm, ash, basswood, butternut, black walnut, and hickory. Besides these two large forests, nearly all the streams are fringed with woodland, and dense forests of considerable extent cover the valleys. The extensive bottoms of the Mississippi, Minnesota, and Blue Earth, are covered with a heavy growth of white and black walnut, maple, boxwood, hickory, linden, and cottonwood. The valleys of the Zumbro and Root rivers support large tracts of forest growth. They are found more or less in Wabashaw, Dodge, Steel, Fillmore, Mower, Freeborn, Olmsted, and contiguous counties.

But the oak openings, distributed in groves and large parks through the uplands along the margins of the numerous streams, form a large resource of the prairie population for domestic and mechanical purposes. Toward the western boundary of the State the timber becomes more scanty, and it assumes more the character of a vast prairie region, dotted here and there with groves and belts of timber, fringing the Red River and the minor streams. The choice timbered lands and oak openings will be first selected by the settler, and the treeless prairies of the western frontier will be covered with timber in a few years, as soon as the annual scourge of the prairie fire is checked. Wherever these fires are arrested the land is soon covered by a dense growth of timber.

Soils.—The prevailing soil of Minnesota is a dark, calcareous, sandy loam, containing a various intermixture of clay, abounding in mineral salts and in organic ingredients, derived from the accumulation of decomposed vegetable matter for long ages of growth and decay. The sand, of which silica is the base, forms a large proportion of this, as of all good soils. It plays an important part in the economy of growth, and is an essential constituent in the organism of all cereals. About sixty-seven per cent. of the ash of the stems of wheat, corn, rye, barley, oats and sugar-cane, is pure silica, or flint. It is this which gives the glazed coating to the plants, and gives strength to the stalk.

Products of the Soil.—The following table shows the staple agricultural products of Minnesota, and about the *average* yield per acre:—

Crops.	Av. No. bushels per acre.	Crops.	Av. No. bushels per acre.
Wheat	22.05	Sweet potatoes	150.00
Rye	21.56	Beans	15,00
Barley	33.23	Hemp lint, (pounds)	1,140.00
Oats	42.39	Flax lint	750.00
Buckwheat	20.00	Sorghum, (gallons sirup)	100.00
Corn	35.67	Hay, (tons)	2.12
Potatoes	208.00		

The above table is compiled from the census of 1860, and various other sources, and gives only the *average* yield of the crops mentioned, and may be taken as a fair sample of the average for the State at large, one year with another. It must be understood, however, that on the prevailing soil of Minnesota, with manuring and careful cultivation, the actual yield is often nearly double the above figures. Potatoes, for instance, set down at 208, on good soil, and ordinary cultivation, will easily yield 300 bushels per acre; wheat 35, corn 40, and other crops in proportion. In 1865, from 400,000 acres of wheat in Minnesota there was harvested the enormous crop of 10,000,000 bushels, being an average yield of 25 bushels to the acre. Nor was that year's crop considered any thing extraordinary for our soil.

WHEAT is one of the chief staples of agriculture in Minnesota, and is comparatively exempt from the dangers to which it is exposed in other States—drought, rust, smut, insects, &c.

HAY.—* * * The luxuriant growth of the native grasses, which cover the "immense surface of natural meadow-land formed by the alluvial bottoms of the intricate network of streams which everywhere intersect the country," and which "are as rich and nutritious in this latitude as the best exotic varieties," render cultivation unnecessary. The average yield of these grasses is 2.12 tons per acre, 60 per cent. greater than that of the great hay State of Ohio, which, according to the Commissioner of Statistics of that State, is 1½ tons per acre.

* * * * * * * *

Perhaps in no State in the Union does the soil so surely and amply reward labor, or yield larger products for the amount of labor bestowed on it. It is easily cleared of weeds, and, once clean, its warm, forcing nature enables the crop to speedily outstrip all noxious growths. Two good thorough workings usually insures a good growth of almost any cultivated crop.

* * * * * * * *

FRUITS.—Our climate is evidently not so well adapted to fruit-raising as that of some other States south of us. Still, sufficient of most kinds may be raised to supply the home demand.

* * * * * * * *

THE GROWING SEASON IN MINNESOTA.—In Minnesota, during the growing season, we find all those conditions most favorable to agriculture present in a marked degree. Its mean spring temperature is 45.6 degrees, which is the same as that of central Wisconsin, northern Illinois, northern Ohio, central and southern Pennsylvania, and New Jersey, 2½ degrees south of it. Its summer temperature is 70.6 degrees, corresponding with that of middle Illinois and Ohio, southern Pennsylvania, Long Island, and New Jersey, 5 degrees south of it.

The season of vegetation in Minnesota, in common with that of

the upper belt of the temperate zone, is embraced between the first of April and the first of October.

* * * * * * * *

FROST.—The period of total exemption from frost in Minnesota, varies from four to five and a half months, which allows ample time for the perfection of all the annual crops. The frost is generally entirely out of the ground, which is then ready for planting, the last of April and first of May. The first fall of frost takes place with great regularity about the middle of September, though sometimes delayed till the middle of October. Minnesota is not exposed to late and early frosts more than the Middle and Western States. The peculiar *dryness of the air* also enables vegetation to resist light frosts, which in other localities would prove disastrous. This fact is exemplified by the frost of June 4, 1859, which was general nearly all over the United States. In Ohio, Indiana, and Illinois, it was universally destructive; ice formed one-third inch thick in Ohio; but in Minnesota no damage whatever was done to field crops. On account of this dryness, the temperature may fall considerably below the freezing point at times, without producing frost. The dryness of the atmosphere, notwithstanding the abundance of the summer rains, is also very important on account of the protection it gives wheat and oats from rust, smut, and insects, which often seriously injure the wheat fields of moister climates.

* * * * * * * *

LAND.—In Minnesota, real estate is low, land is extremely cheap (owing to the large surplus yet unoccupied), while its products command the first prices. Wheat, oats, corn, potatoes, and in fact all that the farmer raises, find a ready market for cash at home.

* * * * * * * *

A man with a small, but high-priced farm in the old States can dispose of it for sufficient to set himself up well in Minnesota, and procure a farm for each of his children besides; and these farms, in a few years, will be as valuable as the one in the old State is now. The fortunes made by farmers here within a few years, would scarcely be credited in the older States.

* * * * * * * *

STOCK-RAISING.—For raising cattle and horses, Minnesota is fully equal to Illinois; and for sheep-growing it is far superior. According to established laws of nature, cold climates require a larger quantity and finer quality of wool or fur than warm ones, hence the fur and wool-bearing animals are found in perfection only in northern regions. The thick coat of the sheep especially identifies it with a cold country; the excessive heat to which their wool subjects them in a warm climate generates disease. The fleece of Minnesota sheep is remarkably fine and heavy, and

they are not subject to the *rot* and other diseases so disastrous to sheep in warm and moist localities. It is asserted by stock-growers, that sheep brought here while suffering with the rot speedily become healthy; and the same has been said of horses with heaves and shortness of breath. The sleek and velvety appearance of horses here in summer time, gives them the appearance of highly kept stallions. The cattle raised here are also remarkably healthy, the unanimous testimony of butchers being that they seldom meet with a diseased liver.

Hogs also do extremely well here, and the abundance and certainty of the grain crop enables farmers to raise them as cheaply as elsewhere.

All stock requires shelter during the winter in this climate, but the necessity is no greater than in Indiana, Ohio, and Illinois. The washing, chilling, and debilitating winter rains of those States are far more injurious to out stock than our severest cold. All the shelter which stock requires here is that readily furnished by the immense straw piles which accumulate from the thrashing of the annual grain crop. A framework of rails or poles is made, and the straw thrown over it, leaving the south side open. Under this cattle stand, feed on the straw in perfect security from the inclemencies of the severest winter.

* * * * * * * * * *

MINNESOTA SCENERY, &c.—The scenery of Minnesota has attracted the attention of many writers, painters, and poets, and elicited eulogies in prose and verse, ever since the first white man stood on the brink of St. Anthony's Falls, or listened to the gleeful splashing of Minnehaha. The brilliant purity, dryness, and elasticity of the air, bringing every object out with bold, distinct outlines, lends a peculiar charm to the lovely scenery which everywhere abounds. The nights, particularly, are serene and beautiful beyond description.

* * * * * * * * * *

Prof. Maury says:—"There is in this territory a greater number of these lovely sheets of laughing water than in all the country besides. They give variety and beauty to the landscape; they soften the air, and lend all their thousand charms and attractions to make this goodly land a lovely place of residence."

* * * * * * * * * *

These lakes all abound in fish, superior in flavor and quality to those of the sluggish streams of the Western States. Many leaping brooks, fed by springs, are pure and cold as mountain streams, and abound in speckled trout. To the disciples of Izak Walton, Minnesota is a perfect paradise. To one fond of the sport, nothing could be more delightful than to drive out to one of these lovely sheets of water, spending the heat of the day on their shady shores, and the morning and evening in a small boat, with

rod and tackle. In the spring and fall, these lakes are all covered with ducks and other water-fowl, affording rare amusement for the sportsman.

* * * * * * * * * *

From the first of May until the first of August, fishing is the principal sport. Sometimes wild pigeons, which often breed in our woods, may be shot in great numbers in June. After the first of August, till frost, fowling commences, and the gun and dog take the place of hook and tackle. The first of August in Minnesota is what the first of September is in England, when the game law permits the shooting of prairie chickens, pheasants, grouse, &c., which abound everywhere. The larger game, such as deer, elk, and occasionally a bear or buffalo, come in with cold weather, and continue till spring. In the fall and spring, ducks and geese are found plentifully in every little lake.

* * * * * * * * * *

When clothed in the sylvan garments of summer, decked with the floral gems of a thousand fragrant prairies, and lighted by the gorgeous tints of its sunshine, or mellowed and softened by the dreamy haze of the "Indian summer" of the autumn months, nothing could surpass the scenery of Minnesota, diversified as it is with rock-ribbed hills and slumbering valleys, woodland and prairie, lofty and rugged bluffs, ravines, gorges, cataracts, cascades, eternal springs of limpid purity, and leaping streams which never dry.

CLIMATE AND SALUBRITY.—Minnesota, owing to the large lakes east and north of it, and the vast arid plains, extending from latitude 35° to latitude 47° west of it, enjoys a mean spring temperature of 45°, warmer than Chicago 2½° south of it, and equal to southern Michigan, central New York, and Massachusetts; a summer mean of 70°, equal to central New York, central Wisconsin, northern Pennsylvania, and northern Ohio, four degrees south of us; an autumnal mean of 45°, equal to New Hampshire, central Wisconsin, and central Michigan, 2½° south of us; a winter mean of 16°, similar to northern Wisconsin, northern Michigan, central Vermont, and New Hampshire, on the same line of latitude, but nearer the ocean; while its climate, for the entire year, being a mean of 45°, is similar to that of central Wisconsin, New Hampshire, and central New York, two degrees south of it. We thus have an annual range of temperature from the summer of southern Ohio to the winter of Montreal.

* * * * * * * * * *

The assertion that the climate of Minnesota is one of the healthiest in the world, may be broadly and confidently made. It is sustained by the almost unanimous testimony of the thousands of invalids who have sought its pure and bracing air, and

recovered from consumption and other diseases after they had been given up as hopeless by their home physicians; it is sustained by the experience of its inhabitants for twenty years; and it is sustained by the published statistics of mortality in the different States.

Minnesota is entirely exempt from *malaria*, and consequently the numerous diseases known to arise from it, such as chills and fever, autumnal fevers, *ague cake* or enlarged spleen, enlargement of the liver, &c., dropsy, diseases of the kidneys, affections of the eye, and various bilious diseases, and derangements of the stomach and bowels, although sometimes arising from other causes, are often due wholly to malarious agency, and are only temporarily relieved by medicine, because the patient is constantly exposed to the malarious influence which generates them. Enlargement of the liver and spleen is very common in Southern and Southwestern States. We are not only free from those ailments, but by coming to Minnesota, often without any medical treatment at all, patients speedily recover from this class of diseases; the miasmatic poison being soon eliminated from the system, and not being exposed to its further inception, the functions of health are gradually resumed.

Diarrhea and dysentery are not so prevalent as in warmer latitudes, and are of a milder type. Pneumonia and typhoid fever are very seldom met with, and then merely as sporadic cases.

Diseases of an epidemic character never have been known to prevail here. "Even that dreadful scourge, diphtheria, which, like a destroying angel, swept through portions of the country, leaving desolation in its train, passed us by with scarce a grave to mark its course. The diseases common to infancy and childhood partake of the same mild character, and seldom prove fatal." This is the language of Mrs. Colburn, an authoress, and the experience of physicians corroborates this opinion.

That dreadful scourge of the human family, the *cholera*, is alike unknown here. During the summer of 1866, while hundreds were daily cut down by this visitation in New York, Cincinnati, St. Louis, and other places, and it prevailed to an alarming extent in Chicago, not a single case made its appearance in Minnesota.

Another, and a very large class of invalids, which derive great benefit from the climate of Minnesota, are those whose systems have become relaxed, debilitated, and broken down by overtaxation of the mental and physical energies, dyspepsia, &c.

* * * * * * *

Dr. Chas. A. Leas, United States Consul at Madeira, who has resided in Russia, Sweden, Central America, and Madeira, in the service of the Government, under date of September 10, 1866, writes: "I have made the subject of climate, as a curative agent

in consumption, a special study, and in connection with my annual report to the State Department at Washington—just now sent on—I have entered somewhat into detail upon that subject, and have endeavored to show, from observation, that consumption, in its earlier stages, is best relieved by a visit to, and residence of greater or less extent in, high northern latitudes, instead of warm climates, as is the usual custom. I have further suggested Minnesota *as one of the finest climates for that purpose.*"

* * * * * * *

Without asserting that all persons afflicted with pulmonary disease will invariably recover in Minnesota, it may be safely claimed that no climate under heaven offers equal advantages to this class of invalids. While it is undoubtedly true that a larger percentage of those in the early stages of the disease will recover, there can be no doubt but that those in the second and third stages often get well here. No physician can foretell the result of a trial. The only method of deciding the question is by actual residence. There are those here, whom no one would take to be consumptives, who have had but *one lung for over ten years.* Many come too late, or coming in time, continue here the over-taxation of mind or body, or other unhealthy habits, which first broke them down. Their friends blame the climate, if they fail to recover; but the fact is well established that any case within the reach of climatic influence will get well here, if anywhere. Another fact, equally well established, is, that a *permanent residence* here is better, in order to render the cure permanent. Many instances might be cited where invalids, after spending a year or so here, and apparently got well, have gone East and died of the disease; of others, experiencing a return of the old symptoms, and making a second recovery after returning to Minnesota. Many cases, however, are cured, or greatly benefited by a sojourn of a few months.

WATER-POWER.—Mr. J. A. WHEELOCK, State Commissioner of Statistics, says:—

Minnesota possesses a more ample and effective water-power than New England. The falls and rapids of St. Anthony alone, with a total descent of sixty-four feet, affords an available hydraulic capacity, according to an experienced and competent engineer, of 120,000 horse power. This is considerably greater than the whole motive-power—steam and water—employed in textile manufactures in England in 1850, and nearly seven times as great as the water-power so employed.

The St. Croix Falls, which are only second to St. Anthony Falls in hydraulic power, are similarly, though somewhat less advantageously situated at the head of navigation upon a tributary of the Mississippi. Except the Minnesota, nearly every tributary of the Mississippi, in its rapid and broken descent to

the main stream, affords valuable mill sites. The Mississippi itself, in its descent from its Itasca summit to Fort Snelling, in which it falls eight hundred and thirty-six feet, or over sixteen inches per mile, is characterized by long steps of slack water, broken at long intervals by abrupt transitions in the character of the rocks which forms its bed, and forming a fine series of fall and rapids available for hydraulic work. Pokegoma Falls, Little Falls, Sauk Rapids, and St. Anthony Falls, are the chief of these. But the Elk, Rum, St. Croix, and numberless smaller streams one the east slope of the Mississippi, the Sauk, Crow, Vermilion, Cannon, Zumbro, Minneiska, Root, and their branches, nearly all the tributaries of the Minnesota, and a multitude of streams besides, in their abrupt descent over broken beds of limestone or sandstone, through long and winding valleys or ravines, with a fall of from three to eight feet per mile, afford an unlimited abundance of available water-power to nearly every county in the State. This diffusion of hydraulic power throughout the whole State is a feature whose value as an element of development can scarcely be overestimated, as it gives to every neighborhood the means of manufacturing its own flour and lumber, and affords the basis of all those numerous local manufactures which enter into the industrial economy of every northern community.

MINERAL RESOURCES.—Gold quartz has lately been found in Carlton County, and gold and silver at Lake Vermilion, about eighty miles northwest of the head of Lake Superior. In reference to the latter, we quote from the official Report of the U. S. Commissioner, TAYLOR, Washington, May 2, 1868:—

"These quartz veins were ascertained in 1865–6 to be auriferous; a specimen weighing three pounds, containing copper pyrites, was forwarded by the Governor of Minnesota to the Mint in Philadelphia, and, upon assay, was found to contain $2.63 of gold, and $4.42 of silver, per ton of 2,000 lbs. The State Geologist, Mr. H. H. EAMES, reported an abundant supply of quartz and equal in richness. Other assays in New York, in one instance by officers of the United States Assay office, exhibited results from $10 to $35 per ton. Professor BLANEY, of Chicago, described a vein 10 feet in width, at the foot of a shaft of 50 feet, which was 'indubitably gold-bearing,' and added, that specimens taken from its central portion, as proven by assay, would be sufficient in California, Colorado, and other successful mining regions, to warrant further exploration. Washings of the drift, near the veins opened, have produced gold, but in limited quantities."

A ton of quartz from the Vermilion mines, recently reduced at

St. Paul, is said to have yielded eight pounds of bullion, valued at between $400 and $500. The question of the general productiveness remains to be determined.

Copper and iron ores are found in the northern part of the State. Coal, copper, and iron in Nicollet County. Iron of good quality, also large beds of excellent potter's clay, are found.

We extract the following from the last Report of Surveyor-General NUTTING, of Minnesota:—

FACILITIES FOR EXTERNAL AND INTERNAL COMMUNICATION.—The steamboat business of Minnesota is, as yet, confined to the Mississippi, the Minnesota, and St. Croix rivers. The Northwestern Union Packet Company own eleven first-class packets, twenty stern-wheel steamers, and from one hundred and thirty to one hundred and forty barges, and employ over two thousand men. Their boats ply between Dubuque and St. Paul, and between La Crosse and St. Paul This company has also regular lines on the St. Croix and Minnesota rivers for passengers and freight. The Northern Line, plying between St. Louis and St. Paul, consists of nine or ten first-class side-wheel packets, eight stern-wheel steamers, and sixty or more barges. A boat leaves St. Louis and St. Paul daily.

RAILROAD SYSTEM.—In 1857, Congress made a land grant of four and a half million acres to Minnesota for railroad purposes. In 1864, an additonal grant was made. These acts grant ten sections (6,400 acres) of land for each mile of road to be built in compliance therewith. These lines are as follows:—

FIRST DIVISION OF ST. PAUL AND PACIFIC RAILROAD—from Stillwater, *via* St. Paul and St. Anthony, to the western boundary of the State, near Big Stone Lake, 220 miles. This road is completed and in operation from St. Paul to Lake Minnetonka (fifteen miles west of Minneapolis), twenty-five miles. A branch line of this road is completed, and cars running thereon to St. Cloud, seventy miles from St. Anthony, and eighty miles from St. Paul.

MINNESOTA VALLEY RAILROAD—from St. Paul up the valley of the Minnesota River to Mankato; thence in a southwesterly direction to the Iowa line, in range 42 west; distance to State line, 170 miles. Completed and in operation from St. Paul, 60 miles, and is being rapidly pushed forward.

THE MINNESOTA CENTRAL RAILROAD—a line from St. Paul and Minneapolis (junction at Mendota) running nearly due south, *via* Faribault and Owatonna, to the Iowa line; completed and in operation to Austin, 105 miles, where a junction is formed with the McGregor Western Railway, giving all rail connection with the east and south, *via* Prairie du Chien.

THE WINONA AND ST. PETER RAILROAD—a line from Winona, *via* St. Peter, to the western boundary of the State; completed, and cars running from Winona, west, 100 miles or more. The line when completed, will be 250 miles long. It intersects the Minnesota Central at Owatonna.

THE SOUTHERN MINNESOTA RAILROAD—a line from La Crescent, through the southern tier of counties of the State, to the western boundary, completed and operated to Rushford, 30 miles; whole length of line, 250 miles.

LAKE SUPERIOR AND MISSISSIPPI RAILROAD—a line from St. Paul to the head of Lake Superior, in Minnesota. The distance is about 150 miles. Thirty miles have been graded, starting at St. Paul, and work is now being vigorously prosecuted on the line.

NORTHERN PACIFIC RAILROAD—a line crossing the State from Lake Superior to the Red River. Engineers are now making a survey of the two trial lines for this road.

HASTINGS AND RED RIVER RAILROAD—a line from Hastings through the counties of Dakota, Scott, Carver, McLeod, &c., to the western boundary of the State. Twenty miles are graded.

WINONA BRANCH OF ST. PAUL AND PACIFIC RAILROAD—from St. Paul to Winona, along the valley of the Mississippi River. This line has been surveyed, ten miles of the grading completed, and the company propose to build and equip the road at an early day.

From the Report of the Department of Argriculture, April, 1868:—

PRICES OF UNIMPROVED LAND.—Returns from about 25 counties of the more thickly settled portions of this highly prosperous and rapidly advancing State, indicate an average increase of at least 100 per cent. in the value of farm lands in the surveyed districts, as compared with the census of 1860. The lands embracing nearly the whole upper half and a portion of the southwestern counties of the State have not yet been surveyed and put in market by the Government; are uninhabited or settled only by Indians and traders, and are not, of course, considered in making up the average increase. No county reports an active decrease in value of farm lands, though Morrison, sparsely settled, and Cass, just coming into market, report no change in price since 1860; and Ramsey, in which the capital is located, and where lands were held very high at that date, reports little if any advance. Brown, Nicollet, and Watonwan claim an increase of 300 per cent., the first-named somewhat higher; Wabashaw, 250 per cent.; Carlton and Carver, 125 to 150 per cent.; Mower, Freeborn, and Faribault, 100 per cent.; Dodge, 70 per cent.; Rice and Washington, 50 per cent.; Houston, Winona, Le Sueur, and Scott, 25 to 33 per cent., and several others ranging from 5 to 25 per cent.

Vast quantities of Government lands are yet unsold, and may be purchased at the minimum price of $1.25 per acre, or entered as homesteads under acts of Congress making provision therefor. In the counties which have been taken up, however, the wild or unimproved lands are held at higher figures, running from $2 per acre upward. In Carlton such lands command $3 per acre, loamy, but in small tracts light and sandy; in general fertile, and well adapted to winter wheat, roots, all kinds of grain (except Indian corn), also timothy and clover. In Crow Wing, $2.50 per acre; Morrison, containing public lands, $1.25 per acre; a portion first-class, others light; generally well timbered; presents rare advantages for settlement under the homestead laws. Monongalia and Wright, $5 per acre; prairie and timber, clay subsoil, soil dark, deep, and rich, capable of producing excellent wheat and small grain. Washington, $8 per acre; the southern half of the county mostly prairie of the best quality; with good cultivation it will produce 40 bushels of wheat to the acre; in the northern part the land is more broken and covered with bur oak; the soil is stiff; produces good crops of wheat and oats, grass, &c. Carver, $8 per acre; timber and meadow; soil good, capable of producing all crops suited to the latitude; several beautiful lakes in the county, affording an abundance of good fish and pure water. Scott; nearly all the unimproved land in this county is either marsh or woodland; the former at this time has but little market value, but its prospective value is great for forage purposes, it being susceptible of easy and cheap drainage, and thus improved and sown to timothy and red-top grasses would become enduring and first-rate meadows, an important item when stock is kept up half the year; woodlands now command $15, and in the course of a decade of years will average not less than $50 per acre. Rice, $7 per acre, with land similar to that just described, timber and low land. Le Sueur, $6 to $10 per acre; land rolling, deep, sandy soil, capable of producing large crops of wheat, oats, corn, potatoes, &c., for a long series of years without manure. Nicollet, $2.50 to $10 per acre; rolling prairie, friable, black loam, with clay subsoil, will produce wheat and other cereals, &c. In Brown County a portion of the "Sioux reserve" is in the market at $1.25 per acre; rolling prairie, soil a rich, black humus, about two feet thick. Watonwan, $7.50 per acre; black, sandy loam, on clay subsoil. Faribault, $3 to $6; rolling prairie; good soil. Mower, $6; level prairie; good rich soil. Freeborn, $3.50 per acre; suitable for farming or grazing. Dodge, $12 per acre; mostly good, dry, tillable prairie; balance (except a small percentage of wet peat land) timber, worth $20 per acre. Wabashaw, $12.50 per acre; rich prairie. Winona, $5 per acre; good for wheat, corn, oats, potatoes, &c. Houston, $7 per acre; soil fertile and productive, especially for wheat. There is a vast area or territory

yet unsurveyed within the limits of this State, perhaps one-half of the whole State, embracing a variety of soil, resources, &c., which will be open to settlers as speedily as the demand shall require the Government survey.

Cost of Opening a Farm.—"To break prairie land costs from $2.50 to $4 per acre; timber land, of course, much higher. Lumber costs from $14 to $17 per thousand feet for fencing, according to the distance from the mills. Posts are made of cedar, tamarack, oak, pine, and locust. Machinery does a large part of the farm work. We have gang-plows, seed-sowers, cultivators, reapers and harvesters, mowers, thrashers by horse power and steam. Men engage exclusively in these branches—have their own machinery, and, going from farm to farm, gathering a man's crop and putting it in market in a few days. Hired men are procured with but little trouble for farm work, and at prices ranging from $16 to $30 per month; hired girls at from $7 to $10. The expense of building houses must be gathered by the reader from the price of lumber and mechanics' wages. Lumber for dwellings costs from $15 to $22 per thousand, and carpenters get from $2 to $3.50 per day; brick and stone masons, from $2 to $4 per day. Large barns are not required—or, at least, are seldom found. When the thrashing is done in the fall, the straw is thrown upon the timbers constructed with 'crotch and rider,' which affords a warm and secure shelter for stock in all weather. Farm horses here are worth from $80 to to $180; cows from $30 to $45. Abundance of good hay grows wild on our marshes and meadows, is considered equal to the Kentucky blue-grass, and by many superior to clover and timothy. The expense of living here can be estimated by the prices charged for board at hotels and private boarding-houses. The prices range from $1 to $3. per day at hotels, and from $1 to $2 at private boarding-houses. These are the prices in the larger cities of the State, but good accommodations are procured in thrifty towns and on the shores of attractive lakes, at more moderate prices."

Miscellaneous.—Among the many curious laws of migration is one which seems to have prevailed in the settlement of Minnesota—it is, that people usually migrate nearly due west. The inhabitants are mainly from the Northern and Eastern States. New England, especially, is well represented. There are, of course, people of all nationalities—many Norwegians, Germans, and Irish. "Most of the settlers are plain, honest, industrious farmers, attracted to our State by the salubrity of its climate, and the productiveness and cheapness of its lands. A large proportion of the population is made up of the best classes from the older States, who have come to reap the advantages of our fine climate, or to invest their means in property in our fine agricul-

tural districts and in our rapidly growing towns, where immense fortunes have been realized by their rapid and solid growth.

"We rarely see here any of that ruffianism and lawlessness which in most new States render them unpleasant as a permanent residence. It would be as difficult to find a township without its 'meeting-house' and school-house as in Ohio or Pennsylvania. The various religious denominations are proportioned among the population in about the same ratio as in the older States."

In respect to her provision for education, Minnesota is the peer of any State in the Union. Two sections of land in every township, or about three million acres in all, are devoted to the aid of her common schools; also a tax of one-fourth of one per cent. on all taxable property.

Governor MARSHALL, in his message to the Legislature, January 10, 1868, says upon this subject:—

"The additions to the permanent school fund last year were $253,871.44. The fund now amounts to $1,587,210.78; 246,126 acres of land had been sold up to the close of the last fiscal year. The school lands of the State, when all the public lands are surveyed, will amount to about 3,000,000 acres. The fund ultimately to be derived from these lands will, with a continuance of the present prudent and successful management, amount to fifteen million dollars—exceeding the united school funds of Massachusetts, New York, and Ohio. There is nothing in the past history or future prospects of the State for which we have so much reason to rejoice and be thankful, as for this unequaled endowment of common schools—this munificent provision to endure through all coming time for the free education of every child of the State."

INTERESTING CORRESPONDENCE.

We give below extracts from a few of the many letters received:—

ST. CLOUD, MINN., *July* 23, 1868.

DEAR SIR:—* * * Farming lands here are good; soil, a rich black loam; greatest portion prairie land, yet an abundance of timber. No mineral or coal, and crops yield largely. Prices: Wheat, $1.50; corn, 60c; potatoes, $1. per bushel. Farm labor scarce. Trades and professions are well filled. * * * Religious advantages are good, all sects being represented. Schools tolerably fair, and improving.

The inhabitants are Americans, Germans, Norwegians, Swedes, and French, the majority being Germans and Norwegians.

Domestic fruit can not be successfully cultivated. Wild small fruits in great abundance. Respectfully yours,

C. W. RICHARDSON.

To F. B. GODDARD, Esq., New York.

KASSON Co., MINN., *July* 18, 1868.

Character of lands in this county—prairie, timber, and oak openings, with rivers and creeks. Wages, $1 to $3 per day—all kinds needed. Clear, pure air, and no sickness. Good timber, good limestone. Principal crop, wheat; price, to-day, $1.75. Good schools, good churches. Population, Americans, Germans, and Scandinavians. * * * * We have one of the best farming countries in the world, are directly on the railroad, and there are great inducements for capital and labor. Are rapidly going ahead. Price of land, from $4 to $50 per acre. Lands sold cheap near this point four or five years ago; now command $30 to $50. * * * Land can be bought two to fifteen miles from town, wild, from $3 to $15 per acre. Wheat will yield the farmer from 25 to 40 bushels per acre.

Yours truly, S. G. NELSON.

MAPLETON, BLUE EARTH Co., MINN., *July* 25, 1868.

Mr. F. B. GODDARD:—

SIR:—In reply to your circular, I would say that we live in the garden of Minnesota. We have fine, rich land, well watered; plenty of grass land; all the timber we want, along the streams, for fencing. * * * Wild land, $5 to $7 per acre; improved land, $8 to $10 per acre, according to nearness to timber. Hands to work on farms get $18 to $20 per month; harvest hands, $3 per day. I have been 15 years in Minnesota, and believe it is the healthiest country I ever lived in or read about. I moved here from Brooklyn, N. Y.

Wheat, oats, corn, barley, and grass are abundant. Crop—wheat, 40 cents below Chicago markets. Five to six schools in every township, and meeting every Sabbath. Population, Americans, and some Scotch and English. People mostly from New England, &c. Yours, &c.,

ROBERT TAYLOR.

JACKSON COUNTY, *August* 8, 1868.

* * * This is one of the southern counties, and contains twenty townships, each six miles square. It is comparatively new, the Indian massacres of 1856 and 1862 having almost entirely depopulated the county; hence the population it now contains has been gained since 1862. It is one of the very best producing

counties in the State. * * * * The Des Moines River runs through the county, and a large extent of country will always be tributary to it. There is no risk in building mills along the river. * * * * It is in flouring mills that the greatest pecuniary profit has been realized in Minnesota for the past ten years. * * * * Men with a thousand or two dollars soon become wealthy.

The class of citizens most needed now are those to open up our rich prairie land into farms, though many other branches of business can be carried on to advantage. * * * Our county is rapidly filling up with immigrants, who see that, for location &c., &c., this surpasses almost any other section in the West.

Our school and religious advantages are unsurpassed. * * * The nationality of the people of Jackson County is almost entirely American, save one town, settled exclusively by Norwegians. No better immigrants come to our shores than these same Norwegians. They open their farms quicker and raise better stock than almost any other class, and quickly become wealthy.

Respectfully, &c.,

G. C. CHAMBERLIN.

F. B. GODDARD, Esq., New York.

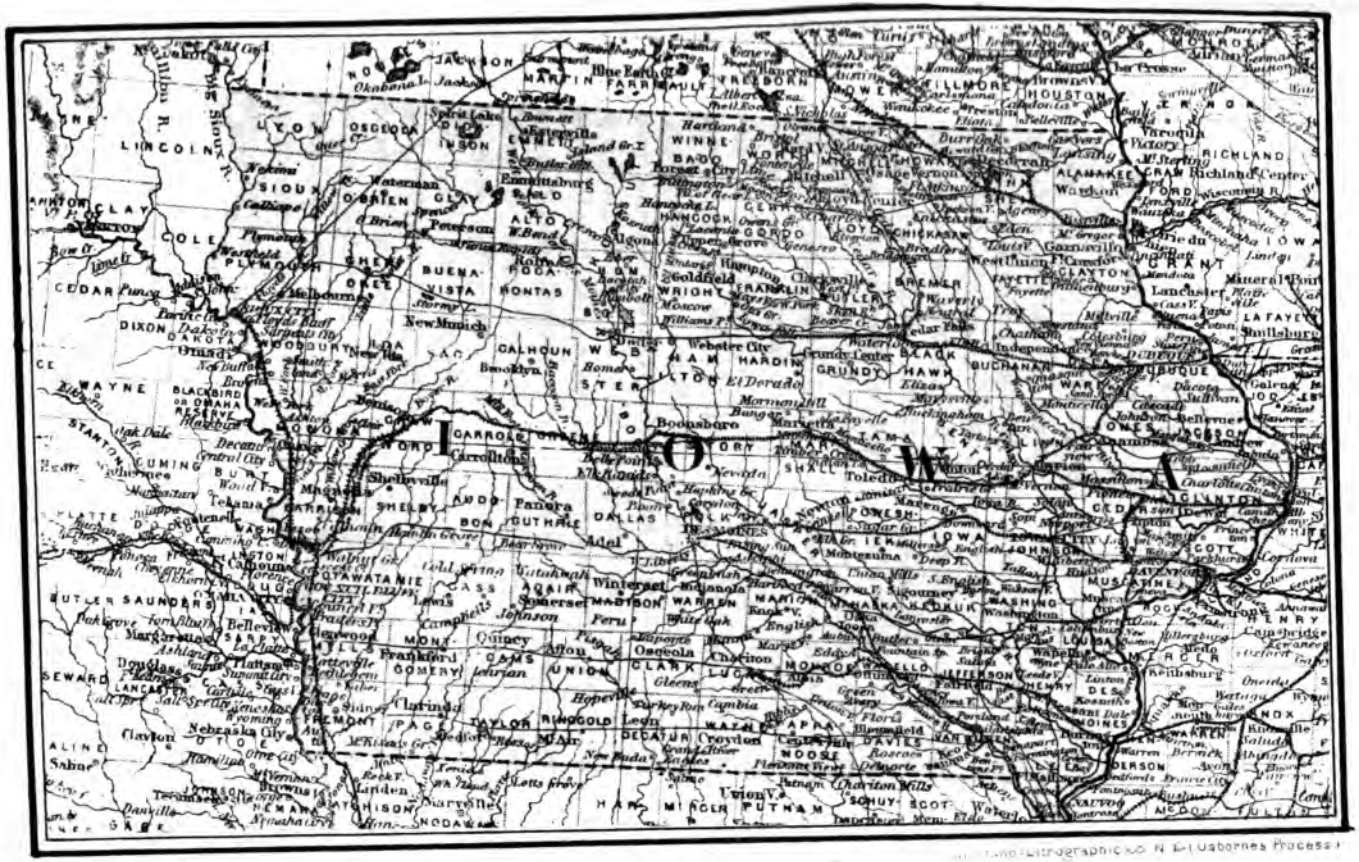
IOWA.

If in all the broad domain of the United States there is any region pre-eminent for its combined advantages of admirable territorial position, salubrious climate, the number and size of its water-courses, fertility of soil, and sunny beauty of undulating scenery, surely it must be the noble State of Iowa.

Iowa occupies nearly a central position between the two oceans, on parallels of latitude which run through the lower New England States, portions of New York and Pennsylvania, and the northern halves of Ohio, Illinois, and Indiana. Minnesota bounds it upon the north and Missouri upon the south. The Mississippi and Missouri rivers form its eastern and western boundaries, and their innumerable tributaries, many of them navigable, traverse the State in every direction.

The most distinguishing features of Iowa, are its admirably diversified prairies, which cover at least three-fourths of the State. These natural meadows, covered with nutritious grasses, stretch out in a series of graceful undulations, like the swell of the sea, and in the season of flowers are clothed with a brilliant vesture of honeysuckles, jessamines, and violets. Frequent fringes of hazel or willow indicate the course of clear, winding brooks, hastening to swell the tide of larger streams, whose grove-belted margins can be traced until the green foliage seems to mingle with land and sky, and soften into hazy blue. It has been said of Iowa, that the monotony of its very beauty and fertility becomes tiresome.

While there are no mountains in Iowa, portions of its northern surface are hilly and rugged, abounding in lakes, and rapid rivers tumbling over rocky ledges. This section of Iowa is not so well timbered as farther south, and is better adapted to grazing than tillage, although possessing frequent valleys and stretches of rolling prairie, unsurpassed for beauty and



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fertility by any portion of the State. Along the Mississippi and Missouri rivers, and others of the larger streams, are numerous limestone bluffs, often rising to the height of more than a hundred feet. Frequently the water-courses have worn deep ravines in these bluffs, and carved them into fantastic resemblance of old feudal castles, with turrets, and bastions, and battlements. These elevations are generally covered with verdure, and slope back into the prairie in successive undulations.

Iowa has a length from east to west of 300 miles, and a breadth of 208. Its area embraces 55,045 square miles, equal to 35,228,800 acres. There are yet to be disposed of in this State, more than three million acres of public land.

Iowa owes its prosperity mainly to its agricultural resources and advantages. Prairie farms are easily and cheaply opened, and are more quickly made profitable than forest lands, which must first be cleared. "Compared to the lifetime of labor it takes to open a farm in the woods, the facility with which one can be established on the prairie is most striking and gratifying to the settler; and as sufficient timber for all ordinary purposes is generally within reasonable distance, the comparative absence of forests is not so important as it otherwise would be, and artificial groves of that useful and ornamental tree, the locust, can be easily and quickly raised. Nothing can exceed the beauty of a prairie cottage, surrounded by its grove of locust, and wherever met with, it marks the abode of taste and comfort."

Emigrants are quick to perceive these advantages; and the vast area of high rolling and easily tilled prairies of Iowa has already attracted thither more than a million inhabitants, who are noted for intelligence, industry, and patriotism. In other respects also, Iowa is unfolding herself, and revealing her bounties to those who have the energy to secure them. The raising of live stock is an important interest, and has received much attention.

It is estimated that the area of the coal fields of Iowa can not be less than 20,000 square miles. These large deposits, in conjunction with the abundant water-power afforded by her

numerous and unfailing streams, must, under the necessities of an advancing civilization, make Iowa prominent as a manufacturing State. Already this branch of industry has attracted a large amount of capital and skilled labor.

Iowa has also demonstrated her claim to be numbered among the great mineral-producing States of the Union. In addition to her coal fields already mentioned, is a large tract of territory in the northeastern portion of the State, of which Dubuque is the center, which furnishes a considerable proportion of the lead produced in this country. These mines are very productive, and furnish profitable employment to many people. Mines of zinc, copper, and iron, also are known to exist in the State, but have not been much developed.

"The railroad system of Iowa, in common with all the Northwestern States, has rapidly expanded during the last ten years. In 1860 the State had six hundred and seventy-nine miles of road in full operation, representing a capital of $19,494,633.

"On the 1st of January, 1862, the number of miles completed and in progress of construction was two thousand and eighty-seven; of these, eight hundred and ninety-two had been finished, at a cost of $21,382,557. Since that time these lines have been steadily prosecuted and others projected. The completion of this system will make Council Bluffs, on the Missouri River, opposite Omaha, the eastern terminus of the Pacific Railroad—the point of intersection of four extensive lines connecting with the railways of all the Northwestern States. The nature of the country renders the construction of such lines easy and economical; advantages which are fully appreciated and energetically acted upon. The facilities of Iowa for domestic trade are very great. These have been extensively realized. A very large export and import trade has grown up, which, through the advantages afforded by the rivers and railroads of the State, is enlarging at an accelerating ratio."

The future of Iowa was never so full of promise as at present. All parts of the State are rapidly advancing in population, in wealth, and in all that can contribute to the fulfillment of its brilliant destiny.

In reference to the supply of timber in Iowa, PARKER, in his "Hand-Book of Iowa," says:—

Along the streams there are thousands of acres covered with an excellent growth of oak, walnut, ash, lime, maple, hickory, elm, and

cottonwood. These varieties differ in different localities. Along the Iowa and Cedar rivers there is a large amount of oak of all varieties, and the valley of the Des Moines is abundantly supplied with walnut and other valuable timber. I have seen on the banks of the Mississippi as fine a growth of oak as could be desired; trees three or four feet in diameter, standing in a body, miles in length, and three miles in width. The Missouri has heavy timber all along its banks. Hickory and walnut are abundant on the Iowa, Skunk, Cedar, and other rivers. Besides the full-grown timber, there are thousands of acres of a vigorous young growth, that has at last conquered the prairie fires, and is now rapidly coming to maturity. In addition to these, there is a vast amount of locust being cultivated. This grows here with a rapidity that is seldom equaled elsewhere. I have seen trees at the age of ten years that would make eight posts of sufficient size for fencing. Thus, there is an abundance of timber for present purposes, and it is believed, by those best informed, that, notwithstanding the constant demand, the supply is every day increasing, both from natural and cultivated sources.

He also thus describes that portion of the State lying west of the Des Moines River, designated as "Western Iowa":—

The face of the country, through this region, is quite different from that of all the prairie regions east, being more rolling, hilly, and rough; there being less sloughs, mire-holes, and swamps; streams of water being more pure, clear, and swift, being formed from thousands of springs, everywhere bursting from the hill-sides, glens, and ravines. The altitude is considerably greater at this place than at the Mississippi, on a line due east. Near the Missouri and all the large streams, high and precipitous mountain bluffs range up and down the streams, while the region contiguous is generally very rough and hilly; but gradually, as it extends back, becomes more even, and finally, just beautifully rolling as it ascends to higher grounds toward the dividing ridges. The valleys formed by this roughness of surface are immensely rich, of very easy cultivation, and capable of producing to an enormous extent; and, what is a strange peculiarity, the crops are not materially affected by either flood or drought, the soil possessing the peculiarity of sustaining and maturing crops through severe and prolonged drought. The river bottoms are sometimes extremely wide, beautiful, and level; in some places the Missouri bottom is fifteen or twenty miles wide, with an occasional fine, clear lake, well stored with excellent fish.

The highest hills are covered with verdure, grass, or timber, and, if cultivated, would produce good crops of various kinds of grain or vegetables. Although the soil is light, and to appear-

ance poor, it is loose and sandy, and very easy to cultivate. The soil on the bottoms and in the valleys is a black, rich, sandy loam, and often from five to ten feet in depth.

Throughout the whole region, fine rivers, creeks, and smaller streams of water occur, which afford an abundance of power for mills and machinery; and the endless number of springs and small rivulets furnish an abundant supply for farming uses and stock. Every lake and stream of any size is alive with excellent fish.

CLIMATE, HEALTH, &c.—Our climate is one of the most delightful in nature. Our spring usually commences in March, and by the middle of April the prairies are green, with mild, beautiful weather. In May, all the face of nature is covered with flowers, and the foliage of the prairies bends before the breeze like the waves of an enchanted lake, whilst the whole atmosphere is scented with the breath of flowers. At all seasons of the year, a gentle breeze is fanning the prairies, and a day is never so sultry but that a cooling breath comes to moderate the melting temperature. The evening twilights are beautiful, in most seasons of the year, continuing nearly two hours after sunset. Ten months in the year our roads are hard, smooth, and dry. In autumn, the weather, with little exception, is usually pleasant and fine until near December. Winter brings us very little snow, some years not amounting to more than six or eight inches altogether; the weather through the winter being mostly made up of cool, sunshiny days and clear frosty nights. High, dry, salubrious, and rolling, with most excellent water and a bracing atmosphere, consumption was never known to seize a victim here. On the streams the ague and fever sometimes intrudes, with fevers, occasionally, of other types; but, as the country becomes settled and cultivated, these disappear and are unknown.

In order that the emigrant may more clearly comprehend the surface features, productions, and general resources of Iowa, we propose to give, somewhat in detail, a description of several characteristic or representative counties of the State, which, in a general way, will apply to all. With various inconsiderable local modifications, the same climate, fertility of soil, and natural advantages, extend throughout the State.

We find in the *Iowa State Register*, a leading and influential journal, a series of interesting articles upon Iowa counties, which we are assured have been carefully prepared, and may be received as reliable. Beginning with a county lying on

A PRAIRIE HOME

the Missouri, opposite the mouth of the Platte River, in the western border of the State, we extract:—

MILLS COUNTY.—This is generally conceded to be one of the best counties in the State, in the character of its soil, and its general advantages, for agricultural purposes. It is making rapid progress in population and wealth. A larger area of the land has this year been brought into cultivation than in any *four* years heretofore. Farms are being opened, buildings erected, and orchards planted, in all parts of the county. It contains already many independent farmers, who have amassed fortunes from the products of its generous soil. * * *

SURFACE FEATURES.—The bottom along the Missouri River is from three to seven miles in width, and comprises nearly one-fourth of the territory. This bottom is a deep, sandy loam, of extraordinary fertility, producing as fine crops of corn as may be found in any part of the world. Adjacent to these bottom lands, and stretching irregularly with the general course of the river, rise the bold bluffs of the Missouri. In many places they rise so abruptly as to seem almost perpendicular, and present to the beholder a grand appearance, when seen at a distance. They present toward the river a continued succession of projecting spurs, with small, deep, intervening valleys, generally lined with a small growth of timber. Occasionally larger valleys break through the bluffs, discharging small rivulets, having their source in springs a few miles back. The general elevation of the bluffs is remarkably uniform. The bluffs, and the narrow strip of broken land adjacent, form a division, or belt, of perhaps a mile wide, between the bottoms and the available prairie land. The general surface of the prairie is high and rolling. But little of it is so broken as to be undesirable for cultivation. The soil is a light loam, with no clay subsoil. The valleys along the several streams which pass through the county are large, and as fertile as any to be found elsewhere. * * * * *

TIMBER.—Mills County, as a whole, is well supplied with timber. It is estimated that over one-tenth of the surface is covered with timber. The principal varieties are bur-oak, pin-oak, black walnut, hickory, white-ash, red elm, white elm, hackberry, mulberry, maple, linn, and cottonwood. The groves of stately cottonwood along the Missouri bottom, furnish a large portion of the fencing and building material to the county. There are many steam saw-mills engaged along the river, sawing lumber, almost exclusively from the cottonwood. The bluffs contiguous to the river bottom afford a large quantity of hard wood, while on Keg Creek, above and below Glenwood, are many fine groves. The extensive and beautiful valley of the Nishnabotna is not so well supplied with timber. It will be seen that while the west half

of the county is abundantly blessed with timber, the east half is not so fortunate in this respect. The deficiency of timber, however, is amply overbalanced by the wonderful beauty and fertility of the great valley of the Nishnabotna and its tributaries. The streams in the east part of the county afford an abundance of good wood for fuel, and it is annually increasing by the rapid growth of young timber.

Wild grapes abound in the greatest profusion along the great valley of the Missouri. The vines, which cling to the trees in all the groves along the creeks and rivers, rarely fail to yield abundantly every year. Other wild fruits, including strawberries, gooseberries, raspberries, plums, and crab-apples, are also quite common.

Limestone, suitable for walls, and for building purposes, is found in abundance at the base of the bluffs, near the southwest part of the county. There are also several good quarries on Silver Creek, and the Nishnabotna River. Sandstone is found in the northeast part of the county, which is used for building purposes.

Excellent brick are manufactured at Glenwood, Pacific City, and at several other places in the county. Good lime is made from the limestone of the county, and, sand being abundant, there is no lack of good building material. In addition to the building material which the county itself affords, the Council Bluffs and St. Joseph Railroad is now supplying large quantities of pine lumber.

Model Farms, &c.—Some of the finest farms in the West are to be found in Mills County. Eight miles from Glenwood, on Silver Creek, is that of Judge L. W. Tubbs. It contains 1,260 acres—800 fenced and in cultivation. It is so situated that living water passes through each hundred acres, and about the middle of the farm are fine springs of pure, living water. The farm includes 120 acres of fine native timber; besides which, Judge Tubbs has planted 40 acres of artificial grove, chiefly black walnut, maple, and cottonwood. He raised this year 200 acres of wheat, and 300 acres of corn, besides grass, oats, &c. He put out this year four and a half miles of hedge, which is doing well. He has 300 growing apple-trees, Concord grapes, small fruits, &c., in abundance. His fences, buildings, &c., are all new, and in good condition.

H. W. Summers & Bros., near White Cloud, ten miles east of Glenwood, are the owners of a farm of 2,500 acres—1,750 of which are in cultivation. They have this year 1,200 acres in corn, 30 acres in artificial timber, and the rest in wheat, oats, &c. Twelve hundred acres in one cornfield on the Nishnabotna this year, is [illegible]th traveling some distance to see.

[illegible] south of the Summers farm is that of Isaac L. McCoy, the [illegible] of cattle merchants in Mills County. He has 500 acres of [illegible]nd intends to feed 400 head of cattle this year. He deals

more extensively in hogs and cattle than any other man in southwestern Iowa.

Within a few years, D. M. Solomon, Esq., of Glenwood, purchased, at an average of $1 per acre, an even square section of land, being 640 acres. During the last spring he planted thirteen miles of hedge, inclosing the entire section, and dividing it into twenty-three separate lots, embracing fields, meadows, orchards, feeding lots, stock yards, house lot, garden, grove lots, &c. Sixty acres are set apart for artificial timber for wind-breaks and shade. Two lanes, each sixty feet wide, lead from the sides to the center. The outside fences are set in thirty-three feet from the section lines, leaving room for roads. All the plants were set five inches apart. This improvement is made without building any fences, or making any preparatory cultivation of any portion of the land, except to put the hedge lines in suitable condition. No grain has been raised, or ground broken therefor, nor is it the intention to raise any until the hedge is grown and complete.

Real Estate.—The prices of unimproved prairie land range at this time from $5 to $12 per acre—the average selling price being about $6 per acre. The prices are gradually rising. There is not much timber land in the market, but when it can be had, the prices range from $25 to $45 per acre. Heavy cottonwood on the Missouri is worth from $75 to $100 per acre. This, of course, is the most valuable timber land in the county, and affords immense quantities of lumber.

The prices of improved land, of course, depend upon the location, quality, state of improvement, and other circumstances. During the present season a number of improved farms have sold at from $25 to $30 per acre. There are not many farms in the market.

Educational.—The last annual report of the County Superintendent, Rev. L. S. Williams, for the year beginning October 4, 1866, and ending October 4, 1867, gives the following statistics in regard to educational matters in Mills County:—

Number of sub-districts	40
Number of male pupils	1,234
Number of female pupils	1,198
Number of pupils in attendance	1,922
Average attendance	1,084
Number male teachers	33
Number female teachers	34
Average compensation of male teachers per week	$10.73
Average compensation of female teachers per week	4.87
Aggregate paid teachers during the year	$8,166.29

Indian Creek is the only township that paid female teachers

more than males. In that township the average weekly compensation of female teachers was $12.58, while that of male was $7.50.

LUCAS COUNTY is in the middle of the second tier of southern counties, there being five on the east, and five on the west.

The principal streams are Chariton River, Whitebreast, Otter Creek, North and South Cedar, Wolf Creek, and English Creek.

There are also numerous smaller streams, affording an abundance of stock water. None of the streams are reliable for mill purposes.

Along all the principal streams are heavy bodies of timber, affording a bountiful supply convenient to nearly every portion of the county. Timber is most abundant on Grand River and Whitebreast, but Wolf Creek and the other streams mentioned have many fine groves. The timber is chiefly oak, walnut, hickory, soft maple, and cottonwood.

This county has not yet proved itself to be equal to some others in Iowa as a coal-bearing county, but there is an abundance for all practical purposes. Most of the banks which have been opened are on Whitebreast. A good article is obtained within 4½ miles of the county seat. Coal is also found on North Cedar, and there is no reason to doubt that it is sufficiently abundant to meet the future demands of a populous county. The veins are generally from 2½ to 3 feet in thickness, and so far, have only been worked by *drifting* from the sides of the banks along the streams where there were exposures from the action of the water. When the demand renders it necessary to adopt a more thorough system of mining, there is no doubt that thicker deposits and a better quality of coal will be obtained. Such has been the experience of miners in other portions of the State.

Good building stone is obtained within a mile and a half of Chariton on a branch of Whitebreast. It is abundant in other parts of the county. A good quality of quicklime is manufactured from stone obtained in various localities. Brick of excellent quality is made in the immediate vicinity of the county seat, and there is no difficulty in obtaining sand in abundance for building purposes along all the principal streams. The quality of building material has been tested by the erection of a large number of substantial brick buildings within a few years.

The well-water obtained in all parts of this county is of the very best quality, and is found in great abundance at a depth of from 20 to 30 feet, except along the bluffs of the streams, where, as usual in other parts of the State, it is not so easily obtained. Along the streams mentioned, there are many excellent springs, which flow abundantly at all seasons of the year. The water generally flows over a limestone formation, and is therefore what

is termed "hard," but is clear and cold. In this most essential element for life, health and comfort, Lucas County is not behind any other.

The finest farming lands in the county are the rolling prairies, the soil of which is a rich, deep, black vegetable loam, formed by the accumulations of ages. But a small proportion of the prairie land of this county is what may be termed "flat," and but little of it what is usually called "broken." It is nearly all susceptible of easy cultivation. The soil partakes somewhat more of a sandy character than in the counties east of the Des Moines River. After heavy showers, the water is soon absorbed, which gives to the soil its moist character so favorable to the growth of vegetation.

As an agricultural county, Lucas ranks among the best, though as yet new and undeveloped. As a grain-growing county, it has already proved eminently successful, but within the last few years very great advances have been made in the manner of cultivation and the character of stock. Fine farms are rapidly appearing nearly all over the county. One farm in Warren township contains over 1,000 acres. A few years ago it sold for $10,000, but could not now be purchased for $30,000. The proprietor has 500 acres in tame grasses. His neighbor has a farm of about 300 acres fenced in fields of 40 acres each with hedge of the Osage Orange. He has about five miles of hedge, much of which has attained a growth sufficient for protection, and has proved entirely satisfactory. Around Chariton are several vineyards, all of which are doing well. The Concord is the grape generally cultivated, and has invariably proved a success.

Three of the best townships of this county—Pleasant, Washington, and Union—are as yet but sparsely settled, owing to the fact that most of the lands in them are owned by non-residents. A large proportion of it is owned by the heirs of one who, at an early day, entered whole townships of land in this part of Iowa, embracing many thousand of acres. He lived in the East, and on his way home from Iowa, after having entered this land, he died. Much of it stills belongs to his heirs. A large portion of the land entered was timber, and it is said the settlers have *gratuitously* bestowed much labor upon it in the way of *clearing* off the timber. Within three miles of the county seat, good improved lands sell at from $10 to $12 per acre, and in parts of the county more distant, at from $5 to $8. The cost of oak and hickory wood in winter is from $4 to $5 per cord, and coal from 15 to 16 cents per bushel. Brick sell at about $7 per 1,000.

DALLAS COUNTY.—Dallas is one of the counties of central Iowa. It is well watered by several large streams, with their tributaries coursing through nearly every portion of it. The Des Moines River crosses the northeast corner township, running in

a southeasterly direction, and affords to that portion of the county a heavy body of excellent timber.

In Lincoln township there are several clear, cold water lakes. One called Pilot Lake, is two miles across, and is a beautiful body of water, with the dry, rich prairie land approaching up to its margin on all sides. The general character of the surface around these lakes is not marshy or swampy, but dry, undulating, and very fertile. Some two or three miles south of Pilot Lake, in the same township, is another, known as Goose Lake, which possesses the same general characteristics. There are several smaller lakes in this part of the county. Springs are numerous along all the streams. In the vicinity of Redfield are some of the finest that I have seen in the West. They are also abundant along North 'Coon, and in the vicinity of Adel may be seen breaking out in various places along the banks of the river. There is no difficulty in obtaining good well-water in nearly every portion of the county. The wells are usually from twenty to twenty-five feet deep.

The 'Coon rivers, as they flow through this county, afford many of the finest mill-sites to be found in Iowa, or the West. North 'Coon, running the entire extent of the county from northwest to southeast, passes through about fifty sections of land, on nearly every one of which a head of six feet could be obtained—the head waters of this stream are about 150 miles north. Although this stream affords an immense power for machinery, but comparatively little of it has yet been brought into use. South and Middle 'Coon also afford many splendid mill-sites, some of which are occupied. The supply of water is constant and reliable the year round. Of the mills and factories in operation on these streams I shall speak hereafter.

The surface of the county is generally undulating, the depressions along the streams being deep, with the timber in many places extending up on the high land. The timber in the bottoms, immediately along the streams, is black walnut, bur-oak, cottonwood, sugar, or hard maple, soft maple, elm, linn, and some other varieties; while the various kinds of oak and hickory grow on the high ridges. One-tenth of the county is timber land.

Mineral Resources.—A number of coal banks have been opened in different parts of the county, and there is no reason to doubt that coal abounds in at least fourteen of the sixteen congressional townships. Indications are visible along all the principal streams of the existence of workable beds of coal. So far as the banks have been opened, the veins are found to be from three to five feet in thickness, and the product equal in quality to the average coal of the State.

Price of Land.—Unimproved prairie lands sell at from $5 to $10 per acre, except in the immediate vicinity of important towns, where it is held at higher prices.

One of our correspondents thus describes Floyd County:—

It is situated seventy miles west of the Mississippi River; the counties of Clayton, Fayette, and Chickasaw lying between it and the river; and Mitchell County between it and Minnesota, upon the north. The Cedar River is the principal stream, averaging about sixty yards in width, and running in a southeasterly direction through the county. It rises nearly one hundred miles distant, in Minnesota, is rapid in its course, affords abundant water-power, and is remarkable for the purity of its waters, and the abundance of heavy timber and excellent stone quarries along its course. There are also several other streams of considerable size in the county, the principal of which are the Little Cedar River, Flood Creek, Shell Rock and Lime rivers. The general course of all these streams is southeast, and several of them afford good water-power.

The surface of the county is gently undulating or rolling, with no high hills, and very little flat or perfectly level land, which so often causes malarial diseases.

The soil of the prairie lands is deep and exceedingly fertile. It is well suited to growing the grains and fruits of the Middle and New England States. The silica, alumina, and other component parts of the soil, are in such proportion as to render it sufficiently dry for tillage, and yet not liable to suffer from drought. A good crop is almost certain. Most of the subsoil is clayey, which would be retentive of fertilizers, should they ever be required; while on the margin of the streams limestone or gravel is frequently found beneath the surface.

The latitude is that of Central New York and Massachusetts. The climate is milder and the atmosphere more invigorating than in those regions. The spring is remarkably early; the sky much like that of New England; the atmosphere less humid; the cold less severely felt; the weather less changeable; while the steady breezes and a plentiful supply of excellent water render this section of country comparatively free from the scourge of pulmonary consumption, and more congenial to health than most of the Atlantic States.

A correspondent of the Iowa *Homestead*, writes:—

The fact that there are over two million acres of Government land in northwestern Iowa, waiting for settlers to accept as a gift, looks strange, when so many are going so much farther to fare so much worse. People will follow navigable streams, railroads, or old emigrant routes. The Mississippi River leads to Wisconsin and Minnesota, the Missouri to Dakota and Montana, and the old California route passes to the south of this region. Railroads have been chartered and endowed with land grants, but have not yet

been built, but the rapid increase of wealth and population in Iowa and Minnesota, has brought us to the time when three great lines are soon to be built through this part of the State, viz. the Dubuque and Sioux City, McGregor and Sioux City, and Sioux City and St. Paul roads. By the time the last-named road can be built, a road will be built from St. Paul to Lake Superior, the head of the largest lake navigation in the world, as at Sioux City it connects with the longest river navigation on the globe. Within two months three hundred miles of railroad will be completed from Sioux City south to Kansas City; and from Kansas City a road is being built south to meet a railroad coming north from Galveston Bay, on the Gulf of Mexico. This road will connect the iron, copper, and lumber regions of the North, with the cotton and sugar regions of the South, through the grass, grain, and fruit region of the center.

The following extracts relate to leading towns of Iowa:—

Des Moines, the capital of Iowa, is now a magnificent city of fifteen thousand inhabitants, and it has all the attributes and the business and energy of an eastern city of four times its population. It has its high way-side retreats, its suburban villas, large and costly churches and school-houses, first-class hotels, street railways, gas-works, public libraries, the court-house, the State arsenal, the United States Post-office building, large and commodious business houses, free bridges, water-power, diamond coal banks, steam printing-presses, several live railroad lines, telegraph lines, and many other essential elements—too numerous to mention—that count in the making up of a first-class city.

Iowa City, the former capital, is situated on Iowa River, eighty miles from its mouth. It is embowered in beautiful groves, and surrounded by very fertile prairies. The State University and other institutions of learning located here, afford excellent educational advantages. Its population is six thousand. Its manufacturing facilities, though undeveloped, are promising.

Davenport, on the Mississippi, is one of the largest cities in the State, having a population of seventeen thousand. The railroad connections are extensive, and the manufactures, though yet in their infancy, are important and growing. Its religious and literary institutions are of high order. The scenery around Davenport is unsurpassed, even in that beautiful country.

Dubuque, settled by a French trader in 1788, is the largest city in Iowa and the depot of the lead regions, a place of very active trade, having a population of nearly twenty thousand. It is well built, and furnished with all the institutions of an advanced

civilization. Its railroad and river commerce have a large capital and numerous employees.

PRICE OF LAND, ETC.

The following is extracted from the April (1868) Report of the Department of Agriculture:—

ADVANCE OF LANDS SINCE 1860.—Returns to our circular from a majority of the counties of Iowa, embracing all sections of the State, and furnishing a fair basis for an estimate, show an average increase of about seventy-five per cent. in the value of farm lands since the census of 1860. Dubuque, Story, Calhoun, Marion, Delaware, Sac, Montgomery, Shelby, Chickasaw, Fayette, and Lucas, report an advance of from ten to twenty-five per cent. Clarke, Jackson, Des Moines, Decatur, Adams, twenty-five to thirty-three per cent. Jefferson, Black Hawk, Muscatine, Cedar, Linn, Clayton, Cherokee, and Wayne, forty-five to fifty per cent. Louisa and Jasper, seventy-five per cent. Warren, Pottawattomie, Allamakee, Appanoose, Benton, Clinton, Palo Alto, and Marshall, one hundred per cent. Crawford, Audubon, Jones, Emmett, and Winnebago, one hundred and fifty per cent. Fremont two hundred and fifty, and Monona as high as three hundred per cent. Harrison, Kossuth, Sioux, and other counties report lands "rapidly advancing," without fixing the percentage of increase.

PRICE OF LAND.—Wild or unimproved lands range in price from $1.25 to $25 per acre, the former being the minimum price for public lands remaining unsold. The average value of these lands, now in private hands or the property of speculators, is probably $6 to $8 per acre. To indicate the general character of these unimproved lands, we give extracts from letters of correspondents in different quarters of the State. In Muscatine there are unimproved lands contiguous to the county seat held at $150 to $200 per acre, while in the valley of Cedar River lands can be bought at prime cost, $1.25 per acre. The former is bluff land, covered with a dense growth of young oak and hickory timber, the soil a black loam for about six inches, lying on a subsoil of tough yellow clay, thought to be peculiarly suited to the culture of the grape in particular, and nearly all fruits in general. The soil of the bottom land is a black sand, and, when it does not overflow, will produce excellent crops of corn. In Clinton the average is fixed at $12 per acre, a large proportion being as good farming land as any in the State, mostly owned by non-residents. Linn County, $10, prairie, all good, mostly first-rate wheat and corn land. Dubuque, $10 per acre, quite rolling, mostly covered with hazel brush, and a young growth of red and white-oak timber; soil a black loam, with clay subsoil. Allamakee, $7 to $10 per

acre, well adapted to the cereal and root crops; the portions too hilly for cultivation being fitted for pastures and vineyards. Chickasaw and Mitchell, $5 per acre, mostly prairie of the best quality for general farming. Winnebago, $3, prairie land of good quality, but not convenient to timber that can be purchased at a reasonable price; will produce good crops of wheat, oats, barley, and potatoes, and fair crops of corn. Kossuth is sparsely settled, and much of the land can be secured under the homestead laws, though in favorable locations land is worth $3 to $5, and rapidly advancing; the greater portion of the county is prairie, with belts of timber along the rivers and creeks. In Emmett and Palo Alto these lands are held at $2.50 to $4 per acre, principally prairie, with scarcity of timber; considerable Government land still vacant. In Sioux and Cherokee, $1.25 to $5, prairie, with little timber. Sac, $6 per acre, three-fourths of the county unimproved, but as good as any taken up. Calhoun and Crawford, $3 per acre, land of best quality; the former contains 300,000 acres of these lands. Audubon, $5, prairie, with about ten acres of timber to the quarter section; a rich alluvial soil. Harrison, $5 to $10, varying from level bottom to high, rolling prairie; soil first-rate, capable of producing forty to eighty bushels of corn, fifteen to forty bushels of wheat, and other crops in proportion. Cass, $2.50 to $10 per acre, prairie, good soil. Adams and Union, $4; Montgomery, $2.50 to $5; Fremont, $2 to $8; Clarke, $4.50; good tillable land, some of it of the very best quality; timber scarce. Decatur, $5, northern half mostly prairie, the southern half timber; soil good, two or three feet deep, no better land for corn, oats, vegetables, &c. Wayne, $3, quality good. Lucas, $5; Appanoose, $8; rough lands $4 to $5; timber $6 to $20; soil equal to that of lands under cultivation. Jefferson, $10, chiefly prairie; some timber; the former consisting of as fine farming lands as can be found in the State. Keokuk, $6, good prairie. Marion, $7.50 per acre, embracing all qualities of land, from best to poorest. Warren, $8, light alluvial soil, adapted to growth of cereals. Jasper, $8, capable of producing sixty to a hundred bushels of corn, or twenty to forty bushels of wheat to the acre. Marshall, $8, good prairie. Story, $5, capable of producing sixty bushels of corn, eighteen bushels of wheat, or forty bushels of oats per acre. Hamilton, $4, prairie, suited to grain or stock-growing. Black Hawk, $10 per acre. Benton, $5 to $15, prairie, best quality, said to be capable of producing seventy-five bushels of oats, forty bushels of wheat, and one hundred bushels of corn, when properly cultivated. Des Moines, $12, and Louisa, $15; quality of soil good.

MINERALS.—Of the mineral resources of Iowa, coal is the most valuable and abundant, and is said to underlie an area of not less than 20,000 square miles, in all embracing a country equal to

two-fifths of the whole State. The Iowa River runs near the eastern boundary of these deposits, which extend southwest into Missouri. It is upward of 200 miles in the direction of the valley of the Des Moines across the great coal-field, while westwardly it extends nearly to the Missouri River. The beds are of immense thickness, in some places said to be one hundred feet or more, and lying near the surface are capable of being worked easily and at small expense. This vast bed of mineral wealth has as yet been very slightly developed, though there are inducements for working it to far greater extent than at present. Our Marion County reporter writes:—

"We probably have more timber land than any other county in the State, and of coal unquestionably more. There is a seven-foot vein of coal underlying nearly the whole of the county; and in the northeastern corner we have veins ten feet thick. The coal in this township will average 350,000 cubic feet to the acre."

The lead mines of the northeast, of which Dubuque is the center, are continuous of those of Wisconsin, and are being extensively and profitably worked. Zinc occurs in the fissures along with the lead, and copper is also found in this region and along the Cedar River. Iron ore exists in considerable quantities, but is not much worked. Many portions of the State are underlaid with limestone, and building stone of several varieties exists, the Annamosa quarries, of Jones County, ranking among the best in the State. Gypsum also appears in limited quantities, and peat abounds in a number of counties, one bed in Sac County containing over 300 acres, from three to nine feet in thickness.

Agricultural Products.—Corn, wheat, oats, and hay, are the great staples of Iowa, being grown to a greater or less extent in every county in the State, with the addition of rye, barley, buckwheat, tobacco, &c., in limited quantities. The corn crop of 1866 reached over 52,000,000 of bushels, with an acreage of upward of 1,600,000, the crop being valued at about $23,000,000, or an average of between $14 and $15 per acre gross. The wheat crop of the same year reached nearly 16,000,000 bushels upon something less than 1,000,000 acres, the crop being estimated at about $22,000,000, or an average of about $22 to the acre, gross product. The wheat crop is the principal market product, other crops being largely worked up at home and sent abroad in more condensed form, as beef, pork, wool, &c. Our Cherokee correspondent says:—

"Rye is not much raised, but is a profitable crop. Potatoes are also productive and much depended upon, and sugar-cane is cultivated to some extent."

Hop-raising is attracting considerable attention in some counties, and in Jackson and Jones they are reported as successfully

and profitably grown; in Sioux they grow wild in abundance, and as large and good as any that are cultivated.

In Jones County several cheese factories have been established the past year, and dairying is becoming a prominent branch.

Our correspondents estimate the net profits of wheat culture at an average of $7 to $10 per acre. Our Sioux reporter says:—

"We have raised as high as fifty bushels of wheat to the acre; a field of ten acres yielding five hundred bushels of clean merchantable wheat."

Our Monona reporter writes:—

"Our main dependence is our immense crop of wild grass for pasture and hay used in rearing cattle, horses, and sheep. Corn and oats not unfrequently yield seventy-five bushels per acre, and in 1866 many fields of wheat all over our county yielded from forty to forty-five bushels per acre. Cattle, horses, and sheep, and all our crops have, for years in succession, commanded high prices."

From Marion our reporter writes as follows:—

"With many in this county wheat culture is a specialty, while others give much attention to grazing; but corn is king here, and is generally fed to hogs and cattle, and, indeed, to any thing that will eat it. This crop is easily produced at the rate of 40 to 50 bushels per acre, and is often so managed as to produce 80 to 120 bushels per acre. I have repeatedly, in this county and in Polk County, had a yield of 110 to 113 bushels to the acre at a cost of 10 cents per bushel; and I have produced 41¼ bushels of May wheat (fall) per acre, at a cost in the bin of 34 cents per bushel, sold at $1.25 per bushel. I have also produced of spring wheat 37½ bushels at 40 cents per bushel, sold at $1 per bushel; of white rye, 35 bushels at 30 cents, sold at 75 cents; oats, 77½ bushels at 9 cents, sold at 25 to 30 cents; beef, at a cost of 2¾ cents per pound, sold at 6 cents gross; pork, at 4 cents, sold at 8 cents; wool, at 20 cents, sold at 50 cents per pound; hay, at $2.50 per ton, sold at $5 to $10. I have raised horses at $50, when 3½ years old sold at $150. Such is not the rule, however, for the reason that farming is generally done very loosely and unskillfully, and consequently with much less profit than if well and thoroughly done."

Our Jefferson reporter says:—

"Corn is made a specialty in this county. One man, with a good pair of horses and proper implements, can cultivate, in a moderately good season, 40 acres, occupying his time from the 1st of March until the 1st of December, which, at an average of 40 bushels per acre, would yield 1,600 bushels; which, at 60 cents per bushel, would yield $960. Rent of land, $100; wages of man, at $20 per month, $180; board of man, at $1.50 per week, $54; board of team, at $7 per month, $63; total, $397; leaving a balance in favor of the crop of $563."

But a small proportion of winter wheat grown, the spring varieties generally succeeding better upon the prairies, while the former is chiefly confined to the timber lands, and in most localities not cultivated to any considerable extent.

Drilling wheat appears to be in little favor in Iowa, and is not practiced at all in most counties, the crop being generally sown broadcast from the middle of March to the middle of April, though a small proportion is put in earlier, and some as late as the first of May. Winter wheat is sown the latter half of September, and early in October in some localities. The crop is principally gathered during the last two weeks in July, extending into the first week of August, depending much upon the time of sowing.

A correspondent on the western border says:—

"Wheat is nearly always sown on corn stubble without removing the stalks, the ground sometimes receiving a shallow plowing; but more is cultivated with a double shovel or common cultivator; others sow the seed and harrow in. The largest crops of wheat ever raised in Monona County have been cultivated upon the latter plan, many of them yielding 45 bushels to the acre. With all of these plans of seeding the ground is well rolled."

Our Lucas reporter says:—

"We plow for wheat four or five inches deep, sow broadcast, harrow twice, and then let alone till harvest."

In Jefferson County, "the best mode of culture for spring wheat is to plow the previous fall, and shallow plowing is preferable; for fall wheat the ground should be plowed deep in June, and replowed before sowing, that the wheat may take deep root, thus securing it against the drying winds of winter and the frosts of March." Plowing is generally done in the fall, and sometimes reported in the spring. In 1866, the average yield of wheat per acre in Iowa was 16 bushels.

Wild prairie grasses, blue-joint, white clover, wild red-top, marsh and slough grass, sedge, wild pea or vetch, and buffalo grass, are the principal natural grasses of Iowa, while timothy, red clover, red-top, and other tame varieties are cultivated with success. Our Jefferson correspondent says:—

"After prairie grass, the varieties most natural to our pastures are blue-grass and white clover; they seem indigenous to our soil and climate, and wherever the prairie grass is eaten out, they appear without sowing."

In Monona County they have a variety of wild grass called tassel or broad-top grass, covering thousands of acres, and yielding five tons of hay to the acre, claimed to be equal to timothy or clover for wintering cattle. In many counties the wild grasses of the prairies furnish the pastures for stock, and animals subsist upon the range during five or six months of the year, at the ex-

pense only of herding and salting. Cultivated grasses will generally extend the season during which stock may subsist entirely upon pastures, one to two months, at an expense of from $1 to $2 per head. Our Decatur reporter says:—

"This county excels in timothy and clover; pastures fifteen to twenty years old yield from two to two and a half tons of hay to the acre, without manure. Cattle can feed on pastures eight months of the year."

In Linn County stock subsist on the prairie grass exclusively six months, and timothy seven months, the cost of the former nothing but herding and salt, the latter $1 to $2 per month. In the northwestern part they have no cultivated grasses, but an abundance of wild grasses of the best quality, upon which farm animals feed seven months of the year, at an expense of about $3 per head for the season.

Fruit culture is yet in its infancy in Iowa, and, owing to want of judgment in the selection of varieties of the large fruits and the proper care of the young trees, experiments have not been universally successful, yet results have satisfactorily demonstrated that hardy fruits may be grown successfully and profitably in every section of the State.

Jefferson County reports that locality well adapted to fruit culture, several varieties of apples doing well and making a profitable crop, the trees being planted much closer than in the East or South. Pears also do well; and grapes are a sure and highly remunerative crop; as per the following statement of our reporter: "On one acre, 1,300 roots, at 10 cents, $130; subsoiling with plow, $25; planting, $15; trellising, $100; total cost, $270; average yield of each vine, 5 pounds; 6,500 pounds at 10 cents, $650; leaving a profit of $380 for the first crop."

In Jasper, many farmers, with orchards planted ten years ago, have plenty of fruit, and are selling their apples at $2 per bushel; grapes sell at 20 to 25 cents per pound. In Mitchell, on the northern border, hardy apples, pears, cherries, and plums do well; a few grapes flourish; orchards are yet young; one garden of 30 apple-trees, yielded as many bushels as trees; strawberries, raspberries, currants, &c., grow nicely. Keokuk County, one apple orchard of 300 trees, last year produced 1,200 bushels, which sold, in the orchard, at $1.25 per bushel. Marshall, some varieties of apples and pears do well; most orchards not yet in bearing; small fruits and berries yield immensely; one acre of Concord grapes, three years old, yielded $1,000 worth of fruit, at 20 cents per pound; five and one-half rods of Wilson strawberries yielded 135 quarts, at 30 cents, $40.50. In Clinton County, an orchard of 300 apple-trees, ten years set, in 1866, produced 900 bushels of fruit, sold in the orchard, at $1.50 per bushel; in 1867, produced 500 bushels, sold at $1.25 per bushel.

SYNOPSIS OF IOWA TAX LAW.

"Taxes are due in November of each year, and become delinquent, if not paid, on the first day of February following, when interest accrues at the rate of 1 per cent. a month for the first three months, 2 per cent. a month for second period of three months, 3 per cent. a month for the third period of three months, and 4 per cent for each month thereafter.

"The first Monday in October, after delinquency, all lands are offered for sale for the tax, interest, and costs, and if not all sold, they are again offered the first Monday in each succeeding month. The purchaser has the right to pay subsequent taxes whenever the same become delinquent; and to redeem the land, the owner must pay all taxes, interest, costs of sale, and a penalty of 30 per cent., with interest on the whole at the rate of 10 per cent. per annum.

☞ "After three years from the date of sale, the right to redeem expires, except as to minor heirs and insane persons."

CORRESPONDENCE.

INDEPENDENCE, BUCHANAN COUNTY, IOWA,
July 28, 1868.

DEAR SIR: Yours of the 21st inst, came to hand a day or two since. I can only give hastily written answers to your questions at present, but in future should you wish to continue your researches, I may be able to write you more fully in regard to the beautiful prairies upon which we live.

* * Our soil is mostly the black, ranging from black sand to the muck. Along our rivers a sandy soil may be had if preferred. Our county is well timbered and watered. It has a population of thirteen thousand souls. We have about ninety school-houses and various churches. A railroad runs directly through the center of our county, making all portions easily accessible to market; there being two healthy vigorous towns, one at the eastern and the other at the western border of the county, with this place (Independence) very near the center.

The price of the lands, ranges from $5 to $25 per acre, owing entirely to the location. Good homes can be secured within one mile of church and school privileges, for from $5 to $10 per acre. I say homes—I mean land to be converted into homes.

The climate is one of the healthiest in the world—at least we think so. The winters are very cold, but spring, summer, and autumn, are perfectly delightful. * * * * *

Wheat brings from $1 to $2 per bushel; oats from 30 to 80 cents; corn ditto, often reaching $1. Barley, from $2 to $3. There were many thousand acres of wheat raised in this county this year, most of which will yield 25 or 30 bushels per acre.

The price of labor is from $1 to $2 per day, or $18 to $20 per month. Supply is not equal to the demand, especially at this season of the year.

As to the class most needed. We need or invite all classes, all races, regardless of their sex, State, color, or religion. All who have a disposition to work, who desire to make comfortable homes by emigrating to the West, can find a multitude of opportunities on the rich prairies of Iowa. There are several thousand acres yet uncultivated in this region, that are only waiting for the powerful hand of industry to turn over the sod, when they will yield an abundant harvest.

The majority of our population is American.

Respectfully,
E. C. LITTLE. P. M.

F. B. GODDARD, Esq.

WINTERSET, MADISON COUNTY, IOWA,
August 13, 1868.

* * * First-class prairie land throughout the county. Improved farms worth from $15 to $40 per acre. Raw prairie is worth from $5 to $12.

Labor is worth from $1.50 to $2; mechanics' labor from $2.50 to $5 per day. Supply good in some of the branches. Masons, bricklayers, and stone-cutters are most needed.

Climate pleasant in summer, and cold in winter, with a *great deal of snow;* very healthful.

Number one building stone; the best there is in the State. Also good limestone. Building and limestone in any quantity within the limits of our city. Good timber within one and two miles of town. Coal is not very plenty near us. Mines within seven miles. * * * There are six streams running across this county; four of the streams are well timbered.

The crops consist principally of corn and wheat. The soil and climate of this county are well adapted to the raising of wheat and corn. Wheat is worth $1.20 per bushel; corn, 55 cents. Crops never have been better than they are this season.

Last summer we commenced to build our public school-house, which will be completed this fall in time for the winter term of school. It is built of stone, two stories high, and will cost $30,000.

NATIONALITY.—This question would be hard to answer, from

the fact that our people are made up from so many different nations. I believe that the majority of our people of foreign birth are Germans, and they make the best of citizens.

Truly yours,
F. M. CASSIDAY.

FRED. B. GODDARD, Esq., New York City.

JEFFERSON, GREENE COUNTY, IOWA,
July 31, 1868.

In reply to the inquiries contained in your circular, I would say that—

1st. The farming lands of Greene County, Iowa, unimproved, are worth from $3 to $8 per acre. Improved farms are worth from $25 to $40 per acre. The soil is a dark vegetable mold, varying in depth from two to four feet.

2d. We need farm laborers principally in Greene County. Such laborers receive $1.50 per day. Employment can always be found on the railroad and in the coal mines a few miles east of here.

3d. Climate mild and *healthy.*

4th. Timber enough to supply fuel and fence material.

5th. Wheat and corn, principal crops; wheat worth $1.50 per bushel; corn, 75 cents. No better county in the west for raising stock.

6th. Chicago & Northwestern Railroad runs through the center of Greene County from east to west.

7th. The best of school and church advantages.

8th. Population, with very few exceptions, American.

Respectfully yours,
O. J. McDUFFIE.

F. B. GODDARD, Esq.

MANCHESTER, DELAWARE COUNTY, IOWA,
July 30, 1868.

F. B. GODDARD Esq:—

* * * The quality of lands in this county is generally very good, principally prairie. Wild lands can be bought from $6 to $15 per acre; improved lands from $15 to $30 per acre. * * * A man can, with two crops, pay for 80 or 160 acres of land and fence it; breaking costs $3.50 to $4 per acre; fence $1 per rod, post and board; or 60 cents, post and wire. Wild lands are being taken up very fast, and have increased in value from 25 to 50 per cent. during the last six months.

The soil varies, mostly black loam; in places sandy. Excellent building stone in this county, and lands are lower here than in some counties west. People seeking homes in this county will have the same advantages they do in Eastern States. Principal fruit, plums, currants, strawberries, apples in small qnautities,—and increasing; all of the small fruits adapted to a northern climate. Country healthy; have been a resident for twelve years. Summers have been hot, but not dry. Iowa has never suffered with drought. Her broad prairies are fruitful every year.

Yours truly,

V. CHILDS.

FROM FLOYD COUNTY.

Dr. J. W. SMITH writes us a most interesting letter, from which we can only make a few extracts:—

* * * I am a physician, a graduate of Yale; have practiced my profession for twenty years in this place. *This is a very healthy region;* water plenty; excellent land near this town is held pretty high, but some miles distant, in this and adjoining counties, there is plenty of unimproved land—price from $3, upward. Good quality from $4 to $10. * * * Common labor, $1.50 to $2 per day; in harvest, $3 per day, with board.

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MISSOURI.

MISSOURI is endowed with a felicitous combination of all the natural advantages, apparently, that can contribute to the grandeur of a State, or the happiness and affluence of a people.

The latitudinal position of Missouri is within what has been called the "golden mean of the temperate zone;" summer is long and warm, and winter, while sometimes severe, early gives way to spring and its blossoming vegetation. The concurrent testimony of our many correspondents in different parts of the State, is, that the climate is generally mild, salubrious and delightful. The Mississippi River flows along its entire eastern border, and the Missouri traverses the State from west to east, dividing it into nearly equal sections. Innumerable tributaries of these great rivers permeate nearly all portions of the State, agreeably diversifying its wide extent of fertile soil, and furnishing abundant water-power for manufacturing purposes.

Missouri is the center of the water-system of the great Mississippi valley or basin, extending from the Alleghanies to the Rocky Mountains. Its position in this respect gives it unrivaled advantages for securing the commercial control of a vast region. The State has, in addition, an extensive and rapidly expanding system of railroads.

Missouri is also wonderfully rich in minerals. More than a hundred and fifty years ago, the mineral region of the present State—estimated to contain nearly 20,000,000 acres—was described in a French chart as a "country full of mines" and it fully realizes the description. This region also possesses, in addition to its mineral wealth, a considerable degree of fertility, and is capable of sustaining a large population. The

greatest length of the State is, from east to west, 318 miles, with a width of 280. It would be a journey of about 1,400 miles to travel around its border lines, which inclose 65,350 square miles, or 41,824,000 acres, of which there are yet in the hands of the General Government 1,800,000 acres to be disposed of as public land. The population is now estimated at upward of 1,500,000, and rapidly increasing under the influx of an excellent class of immigrants, who bring with them both capital and energy.

The surface configuration of Missouri varies much in the several divisions of the State. Especially is this the case in the two portions separated by the Missouri River, which are characterized by widely different geographical and geological features.

The northern part is nowhere mountainous, but is either flat, or rolling prairie, not unfrequently relieved by bluffs and hilly undulations. This portion is generally fertile and beautiful, is better adapted to agricultural pursuits, and under a better state of cultivation than the southern division.

South of the Missouri River, from Cape Girardeau, along the Mississippi to Arkansas—with the exception of a few bluffs upon the river's border—is an extensive region of alluvial or bottom lands, including many almost impenetrable cypress swamps and marshes. Portions of this tract have been reclaimed, and possess a very fertile soil, and it is believed that it may nearly all be drained and brought under cultivation.

From Cape Girardeau to the mouth of the Missouri, and westward to the dividing ridge between the Gasconade and the Osage rivers, the country is represented as generally quite undulating or hilly, with fertile bottoms along the streams. The region about the head-waters of the Gasconade and Big Black rivers, is frequently rugged and rocky, but abounding in mineral wealth. Here are to be found iron, lead, zinc, tin, manganese, antimony, cobalt, nickel, gypsum, plumbago, salt, buhrstone, marble, &c., &c.

The Ozark mountains, with the broken and elevated region

of their spurs and foot-hills, cover at least half that portion of the State south of the Missouri River. From the Ozark range westward, rolling prairies sweep away to the Kansas line.

We are indebted to Prof. SYLVESTER WATERHOUSE, of St. Louis, for his pamphlet upon the "Resources of Missouri," from which we make the following extracts:—

The advance in the price of real estate already requites Missouri for the enfranchisement of her slaves. The Ordinance of Emancipation has inaugurated a better era. The State already begins to feel the generous impulses of freedom. A new life is invigorating the body politic. Enterprise, commerce, and manufactures are stimulated. Capital is flowing into the State. Corporations are forming for the development of our internal resources, and factories are rising for the fabrication of domestic materials. The unsunned wealth of our mines is coming to the light in larger quantities. The pleased earth is yielding to the hands of free labor a richer store of golden grain. Processions of emigrant wagons are moving along all our highways. It is estimated that there was, during last August and September, an accession of 25,000 people to the population of the State. There is a fresh vitality in the very air of Missouri. * * * Semi-tropic fruits mature in southern Missouri, while the productions of a higher latitude flourish in the northern portions of the State. The soil of the river bottoms and rolling prairie is inexhaustibly fertile, and even the mining regions are capable of supporting a large agricultural population. The surface of Missouri is varied and undulating. Hills and mountains diversify and intersect the State. The copious streams which flow from these elevations fertilize the valleys, and afford a motive-power which the level prairie can never supply. Missouri invites manufacturers to her borders with the offer of rich facilities. If natural adaptation is any index of destiny, then this State will ultimately become the workshop of the Mississippi Valley.

Missouri is heavily wooded. Her forests contain fuel and timber amply sufficient to meet the wants of a population of 10,000,000.

The mineral wealth of the State is illimitable. Probably no equal area on the face of the globe surpasses Missouri in the richness and variety of her minerals. Her vaults are stored with almost every kind of ore which the arts of man require. The key to all this wealth is a spade. The lock which secures this treasure is earth—any man can pick it.

During the rebellion, Missouri was cruelly vexed with evil spirits. But these have at length been cast out, and now the State,

though rent and scarred by convulsions, is restored to sanity and health. It is now ready to commence an unobstructed career of development. The motives of freedom, fertility of soil, salubrity of climate, wealth of minerals, facilities for commerce and manufactures, and ease of railroad and river transportation, are the material advantages which invite the capitalist, the tradesman, and the artisan of every clime and nationality to a home in Missouri, to a co-operation in the development of its measureless resources, and to an enriching participation in its prosperity.

AGRICULTURE OF MISSOURI.—Missouri presents to the farmer those conditions of climate which are most favorable to husbandry. The cold of the Northern latitudes restricts variety of production, and blockades communication with icy barriers. The heat of the South enervates energy, and invites to indolence. Missouri enjoys the genial mean which permits the widest range of products, and the full exercise of physical powers.

The richness of the soil is practicably inexhaustible. In bottoms, the mold is sometimes six feet deep; some farms, after bearing, without artificial fertilization, twenty-five successive crops, have yet failed to show any great decrease in productiveness. The strength of the land, and the length of the season, permit two harvests to be gathered from the same field every year. Winter wheat can always be succeeded by a crop of corn-fodder, or Hungarian grass, from the same ground. * * * The water of Missouri is abundant and healthful. Perennial springs and copious streams are found in every part of the State. The alluvium which the Mississippi holds in solution does not impair the salutary quality of its waters. The undulating surface of Missouri affords advantages of drainage and water-power, which are denied to level prairies. This is an important consideration. The necessity of thorough drainage to highly successful husbandry has been established, and the emigrant who would prefer the plains of other States to the gentle inequalities of Missouri, would betray a costly ignorance of his own interests.

The products which thrive in Missouri are too numerous for separate enumeration. The list would be an inventory of the productions of the temperate zone. All the cereals grow with rank luxuriance. The soil is rich in the chemical elements of which the different grains are composed. * * * Hemp and tobacco are two of the main staples of Missouri. Equal to the best growth of Kentucky and Virginia, they are a vast source of wealth to the State. Few crops yield a larger profit. Missouri produces more than forty-five per cent. of the hemp of the United States.

Missouri is admirably adapted to the cultivation of fruit. Apples, pears, peaches, plums, cherries, currants, strawberries, blackberries, quinces, apricots, and nectarines, reach a rare size and

delicacy of flavor. Trees and vines grow rapidly and bear largely. In southern Missouri, the winters are so mild that fruit-trees are seldom injured by inclemency of the weather. The season, which even in northern Missouri permits plowing by the middle of March, can not be very severe or protracted. In open winters, farmers have not infrequently done their plowing in December and January. In the genial climate of Missouri, the farmers may enjoy, from May to November, an uninterrupted succession of fresh fruits. Apples can be produced in illimitable quantities. The trees mature at least five years earlier than they do in New England. Peach-trees continue to bear from fifteen to twenty years, and apple-trees from twenty-five to thirty years. Two thousand bushels of peaches have been gathered from a single acre. Fruit culture is one of the most lucrative branches of husbandry in Missouri.

Unless the prophecies of scientific men are false, and the obvious intentions of nature are thwarted, Missouri is destined to be the vineyard of America. * * * The physical structure of southern Missouri is a prophecy of rich and delicious vintages, which the sagacious enterprise of our citizens should speedily fulfill.

* * * * * * * *

Our soil and climate are favorable to every staple of the temperate zone. In every direction, there are unopened avenues leading to wealth. Rich lands and certain competency are the prizes which the intelligent immigrant will draw. For the prudent and industrious settler there are no blanks. In this State, agriculture will assuredly bless its skillful follower with independence and worldly store.

St. Louis, easily accessible by river or rail, furnishes a ready and unfailing market for every production of the husbandman. The exuberant West invites the farmers of the Old World and of New England to forsake their ungrateful wastes for a soil which will show a richer appreciation of their tillage.

MINERALS OF MISSOURI.—Missouri may safely challenge the world to produce its superior in the number, extent, and value of its minerals. The immensity of its mineral wealth subjects even a truthful exposition to a suspicion of exaggeration. The sober calculations of geology seem to be mere figures of rhetoric. The imperfect explorations which have been made have disclosed the superiority, but not the full magnitude of the metallic resources of Missouri. Some of the vaults of nature's bank have been opened, but the treasure is too vast to be counted. The earth has hoarded in its coffers an unminted and incalculable wealth. The inventory of the mineral resources of Missouri enumerates springs—whose waters are impregnated with salt, sulphur, iron, and petroleum—jasper, agate, chalcedony, lithographic stone, vitreous sand, granite, marble, limestone, plastic and fire-clays,

metallic paints, hydraulic cements, mill and grindstones, fire-rock, kaolin, emory, plumbago, nickel, cobalt, zinc, copper, silver, gold, lead, coal, and iron. Most of these minerals occur in quantities that are literally inexhaustible. In case of many of these articles, the mines and quarries of Missouri could easily supply the market of the world. If an incomplete geologic survey and the rude efforts of unscientific miners, who have as yet scarcely touched the vast deposits of the State, have disclosed such results, we may justly expect far richer developments when an exhaustive investigation has been made, and systematic mining been extensively prosecuted.

Of silver and gold, traces only have been discovered. Cobalt and nickel exist in profusion.

Zinc is very abundant. Its masses have often retarded the mining of more valuable ores. Thousands of tons of this metal, thrown away by the lead miners as a vexatious and worthless impediment to their progress, might be, with a profitable cheapness, reclaimed to the uses of commerce. The ore is very pure.

Copper has been found in fifteen counties. * * *

Lead has been discovered in more than 500 localities. Its purple veins run through twenty counties, and intersect an area of more than 6,000 square miles.

* * * * * * * *

Coal.—Coal underlies a large portion of Missouri. It has already been discovered in thirty counties. Beds of cannel coal, 45 feet thick, have been found. There are 160 square miles of coal in St. Louis County. The amount of coal in Cooper County has been estimated at 60,000,000 tons. Under every acre of Boone County, there is supposed to be at least $1,000 worth of coal. The deposits in the vicinity of Booneville cover an area of 2,000 square miles. The strata have a mean thickness of three feet, and are calculated to contain 60,000,000 tons of coal.

Iron abounds in different portions of Missouri, but the stupendous masses of almost solid iron, found in St. Francois, Iron, and Reynolds counties, dwarf the discoveries of other localities into insignificance. Before the blomaries of Ironton, the furnaces in other sections of the State must pale their ineffectual fires. The results of Dr. Litton's investigations have been often published, but perhaps the use for which this article is designed will justify their reproduction.

Shepherd Mountain is 660 feet high. The ore, which is magnetic and specular, contains a large percentage of pure iron. The height of Pilot Knob above the Mississippi River is 1,118 feet. Its base, 581 feet from the summit, is 360 acres. The iron is known to extend 440 feet below the surface. The upper section of 141 feet is judged to contain 14,000,000 tons of ore.

The elevation of Iron Mountain is 228 feet, and the area of its

base 500 acres. The solid contents of the cone are 230,000,000 tons. It is thought that every foot beneath the surface will yield 3,000,000 tons of ore. At the depth of 180 feet, an artesian auger is still penetrating solid ore.

Dr. LITTON thinks that these mountains contain enough iron above the surface to afford for 200 years an annual supply of 1,000,000 tons. The ore is almost exclusively specular. It yields 56 per cent. of pure iron. The iron is strong, tough, and fibrous.

These ores underlie some of the richest land in the State. The owner possesses at once a fertile farm and a valuable mine. In some cases, it is difficult to determine whether the agricultural or mineral resources are most productive. Full coffers are the reward of either industry. A poor man can earn enough in a few months to purchase a mineral farm. Under prescribed conditions, less than $20 will secure a homestead of 160 acres. The workman who, with a full knowledge of the fact, would prefer delving for a mere pittance in the mines of Europe to the independent ownership of a mine in Missouri, must be a miner who has not yet reached the years of discretion. He must be too young to have a mine of his own.

The mines of Missouri present a favorable contrast to the collieries of Britain. They are shallow, cool, and healthful. The thickness of the seams generally permits work in an erect position. Never, in a single instance, have the galleries of our coal mines been the scene of a fatal explosion. If the unembellished facts of our mineral resources and mining facilities could be diffused throughout the coal districts of England, thousands of British miners would no longer submit to their present hardships, but hasten to the favored State where higher wages and lighter labors would soon procure them a happy competency. The inducements which Missouri presents to the miner are great and substantial. Liberal wages will reward his service, and enable him to satisfy his love of independence and home by the early acquisition of a freehold. Political equality, social respect, and material success, await the myriads whom a knowledge of our mineral resources will soon make citizens of Missouri.

MANUFACTURES OF MISSOURI.—There is no branch of general industry to which Missouri has paid less attention than to manufactures. The rare advantages of the State have not been improved. The amount of our domestic products is by no means commensurate with our facilities for manufacture. But an era of greater activity has already begun. In St. Louis, for the year ending October, 1865, the United States Assessor reports an average of ten licenses a day for the opening of new establishments. During the same period, there was an increase of 5 per cent. in the manufacture of clothing, cotton fabrics, boots, shoes, iron and wooden ware.

It is obviously unnecessary to enumerate the articles that ought to be manufactured in Missouri. There is scarcely a want or a luxury of human life which this State is not able to satisfy by products of domestic manufacture.

Accessible forests of various and valuable lumber cover whole counties, and yet we import annually 150,000,000 feet of lumber, at a cost of $6,000,000.

Admirable water-power abounds in almost every part of the State. It should be taught to drive the wheels of saw-mills, and to whirl the spindles of woolen and cotton mills. No sound reason can be offered why this State should not produce its own textile fabrics. The only cotton mill in St. Louis has met with a success that ought to lead to the erection of other factories.

ST. LOUIS.—St. Louis is ordained by the decrees of physical nature to become the great inland metropolis of this continent. It can not escape the magnificence of its destiny. Greatness is the necessity of its position. New York may be the head, but St. Louis will be the heart, of America. The stream of traffic which must flow through this mart will enrich it with alluvial deposits of gold. Its central location and facilities of communication unmistakably indicate the leading part which this city will take in the exchange and distribution of the products of the Mississippi Valley. St. Louis is situated upon the west bank of the Mississippi, at an altitude of 400 feet above the level of the sea. It is far above the highest floods that ever swell the Father of waters. Its latitude is 38 deg. 37 min. 28 sec. north, and its longitude 90 deg. 15 min. 16 sec. west. It is 20 miles below the mouth of the Missouri, and 200 above the confluence of the Ohio.

This metropolis, though in the infancy of its greatness, is already a large city. Its length is about eight miles, and its width three. Suburban residences, the outposts of the grand advance, are now stationed six or seven miles from the river. The present population of St. Louis is 204,300. In 1865, the real and personal property of the city was assessed at $100,000,000, and in 1866, at $126,877,000.

RAILROADS OF MISSOURI.—The railroad system of Missouri is exhibited in the following tabular statement:—

Railroads.	*Miles.*
Cairo and Fulton	37
Missouri Valley	52
Atlantic and Pacific	88
Iron Mountain	87
North Missouri	168
Hannibal and St. Joseph	233
Missouri Pacific	283
Total length of railroads in operation within the State	948

A vast enlargement of our railroad facilities is contemplated. More than 10,000 miles of new lines have been projected on the west side of the Mississippi. A quarter of a century may elapse before the completion of these extensions; yet the very conception of them shows that the public mind is alive to their importance?

EDUCATION.—Missouri encourages immigrants by a just and generous care for the education of their children. Immigrants will find here not only rare opportunities for material success, but excellent facilities for the cultivation of those spiritual forces which determine the destinies of men and the greatness of nations. * * * * * * *

The public schools of St. Louis were organized in 1833, and went into practical operation in 1839. They are now an honor to Western culture. Improved by the best results of experience, taught by an accomplished corps of instructors, and aided with the resources of valuable public libraries, they afford to the youth of this metropolis the means of a thorough popular education. The grades of our public schools are based upon a system of rigid classification. They culminate in the High School. Students enter this institution only through the ordeal of a competitive examination. Admittance, therefore, implies exemplary deportment, and successful scholarship. The discipline of the High School embraces the higher branches of an English education and the academic course of classic culture. The scholarly training of this institution qualifies its graduates for the duties of life, or the pursuit of polite learning.

* * There is no reason why St. Louis, with its admirable system of public schools and higher institutions of learning, should not become the center of Western culture. The metropolis of the West should diffuse throughout this valley those principles of mental and moral enlightenment on which our republican civilization rests.

PUBLIC LANDS.—Any public lands in Missouri, contemplated by the terms of the act, can be entered under the homestead law. The Government, accepts in payment for public lands cash, land warrant, and agricultural scrip. By act of Congress passed July 2, 1862, "this scrip, when duly assigned and attested by two witnesses, under such authority of said State as the act of the Legislature thereof may designate, may be surrendered at any land office in satisfaction of a location of 'one quarter of a section,' or for any quantity in one legal subdivision less than one quarter section, where such location is taken in full for one quarter section—the location to be restricted to vacant public lands subject to entry at private sale at $1.25 per acre, mineral lands excluded, and whilst the aggregate location of all the claims under the said act may be taken in any of the territories without limitation as to the quantity located in any one of them, yet, in virtue

of express limitation in the statute, not more than 1,000,000 acres of the total aggregate scrip-issue under said act can be located within the limits of any of the States." Agricultural scrip is now very cheap. It can be bought at sixty cents an acre; in other words, 160 acres of land, which the Government values at $200. can be purchased by means of this scrip for $96. But one difficulty attends the location of land with College scrip. Under a 160-acre land warrant, the sole requisition is that the forty-acre subdivisions shall lie in contiguous tracts. But a location with scrip demands that the land shall constitute a "quarter section" in the technical sense of the law. Divide a "section" into four equilateral parts—160 acres, if entered with scrip, must comprise one of these squares; no other form will satisfy the requirements of the law.

Professor WATERHOUSE thus closes his interesting description:—

Free Missouri, instinct with the spirit of progress, and loyal to the genius of Republican liberty, will welcome the immigrant to the enjoyment of her boundless advantages, and enrich his industry with generous recompense. Millions may accept the proffered hospitality without exhausting the ample board which Missouri spreads upon her "table" lands.

From the last Report of the General Land Office:—

SOIL.—The soil of Missouri is remarkable for its variety and excellence. The most productive portions are the alluvions of the river-courses, which, though often mixed with sand, are rich in the elements of fertilization. Even in the mountain regions, there are rich valleys, and those tracts reported as inarable are covered with valuable growths of white pine. The marshes of the southeast, when properly drained, will constitute the best farming lands of the State. The river bottoms are covered with luxuriant growths of oak, elm, ash, hickory, cottonwood, linden, and white and black walnut. Thinner soils abound in white and pin oak; and, occasionally, are covered with heavy forests of yellow pine, crab-apples, pawpaws, hazel, and wild grapes of a spontaneous luxuriance.

CLIMATE.—The climate is noted for extremes of temperature. In the winter, the rivers are often frozen so as to admit the crossing of heavily-loaded vehicles, while in summer it is extremely warm, its enervating effects being prevented by a very dry, pure atmosphere, generally favorable to health and longevity.

AGRICULTURE.—The splendid agricultural capacities of this State are attracting increased attention. In 1860, returns exhibited an advance of from fifty to five hundred per cent. over

the aggregate of 1850, in the production of live stock, cereal crops, tobacco, rice, hay, peas, beans, potatoes, fruits, wines, butter, cheese, molasses of all kinds, honey and wax, wool, slaughtered animals, and of the orchard and garden products. The great staple is Indian corn, to the production of which the rich prairies, and hot summers of Missouri are particularly adapted. More hemp is produced in this State than in any other, except Kentucky. The increase of cultivated land in ten years was threefold. During the subsequent years of domestic strife, the agricultural interests of the State were in a languishing condition; but the return of peace is rapidly restoring the elements of prosperity to all industrial interests.

MINERALS.—Missouri is richly endowed with mineral wealth. The iron region around Iron Mountain and Pilot Knob, is unsurpassed in the world for the abundance and purity of its deposits. On the Maramec River, and in some other localities, are found small quantities of lead.

Copper is found extensively deposited, being most abundant near the La Motte mines. It is also found with nickel, manganese, iron, cobalt, and lead, in combinations, yielding from thirty to forty per cent. All these metals, except nickel, exist in considerable quantities; also silver, in combination with lead ore and tin. Limestone, marble, and other eligible building material, are abundant, especially north of the Missouri. The geological formations of the State are principally those between the upper coal measures and the lower silurian rocks. The drift is spread over a large surface; in the north, vast beds of bituminous coal, including cannel coal, exist on both sides of the Missouri River. When these mineral resources shall receive their proper development, they will immensely enlarge the scope of industrial enterprise.

MANUFACTURES.—The manufacturing establishments, in 1860, numbered three thousand, one hundred and fifty-seven, with a capital of $20,034,220, employing a large laboring force. The expense of production, including raw material and labor, was $30,519,657, the value of the products being $41,781,651, giving a profit of $11,261,994, or fifty-five per cent. on the capital. The articles produced were generally suited to home demands, and restricted to the simpler processes. Facilities for the higher branches of the useful, and for the fine arts, however, are known to exist, and will soon be developed, their aggregate showing a very marked advance over the previous decennial results.

RAILROADS.—In 1860, there were eight hundred and seventeen miles of railroad in operation. Late hostilities were destructive to such interests and property; but the injuries are being rapidly repaired by the renewing forces of peaceful industry. The position of Missouri in regard to continental railway lines, is eminently favorable, one of the direct routes from New York to San Fran-

cisco, passing through the State, which is destined to accommodate a constantly accumulating and extensive trade.

JEFFERSON CITY, the capital of the State, on the right bank of the Missouri, one hundred and twenty-eight miles from St. Louis, occupies an elevated site, with a commanding view of the river, and of the opposite cedar-crowned cliffs. It contains the capitol building, other State edifices, and is well supplied with churches, schools, and newspapers. Its present population is about four thousand.

ST. LOUIS is a great commercial and industrial emporium, commanding a large portion of the trade of the Mississippi River system. Its railroad connections have expanded its influence, increasing its commercial transactions. The accumulations of capital, the splendid industrial enterprise, the social refinement, and intellectual advantages, render it one of the most attractive cities on the continent, its present population being considerably in excess of two hundred thousand.

The State finances are comparatively easy, the administration economical, and the revenue amply adequate to the requirements of the State.

From the Report of the Department of Agriculture, May and June, 1868:—

PRESENT VALUE OF LAND AS COMPARED WITH 1860.—A number of the western counties of Missouri, including Holt, Jackson, St. Clair, McDonald, and Green, Texas, near the southern border, and Howard, Shelby, and Linn, in the northeastern portion of the State, report no material change in the average value of farm lands since 1860; whilst Montgomery reports an active decline of 20 per cent.; Madison, 33 per cent., and Stoddard a still higher rate of decrease. Cooper, Ray, Osage, DeKalb, Calloway, Vernon, Audrain, Scotland, Lewis, Canton, Buchanan, Lincoln, and Scott, report advances ranging from 4 to 15 per cent.; Gentry, 20 per cent.; Christian, Cedar, Newton, and Dallas, 25 to 30 per cent.; Cass, St. Genevieve, Mercer, 33 to 40 per cent.; Pike, Mississippi, Harrison, Livingston, Iron, Chariton, Boone, Dade, Lawrence, Nodaway, 40 to 50 per cent.; Cole, 65; Miller and Bates, 80 per cent.; Moniteau, St. Louis, Phelps, Hickory, Johnson, and Henry, 100 to 150 per cent.; and Jefferson reports an advance of 400 per cent. From the several estimates of our reporters, there appears to be an average of 30 to 35 per cent. for the farm lands of the whole State since the date named. Our Jefferson reporter accounts for the large increase of price in that county as follows:—

"Our county is quite broken and hilly, and was considered almost worthless for farming, averaging about $5 per acre; but in 1863–64 the hills began to attract the attention of fruit-growers, since which time prices have been rapidly advancing."

In many counties lands depreciated largely during the war, but have been increasing in value since 1865; from that date they have generally recovered the decline, and made the advances noted above the values of 1860. In this regard our Shelby correspondent says:—

"Farm lands are now about the same as in 1860; they were 25 per cent. lower in 1863–64, but have advanced at the rate indicated since the latter date. Good farms can be bought here for about $20 per acre."

Another correspondent, in Livingston County, writes as follows:—

"The price of farm lands in this county has increased about 50 per cent. since 1860. Farms selling in 1860 at from $10 to $40, according to locality, improvement, &c., are now selling at from $15 to $60. For some time during the war real estate diminished in value very much below the prices of 1860, but toward the close of the war it increased rapidly, and has advanced steadily ever since, until it has reached the present rates, at which it seems to be on the stand."

Price of Wild Lands, &c.—The wild and unimproved lands of Missouri range in price from $1 to $70 per acre, embracing in character and soil as great a variety as in price. In Carter County this description of land is assessed at $1.30 per acre. In Stoddard it is worth $2.50 per acre on an average; of excellent quality; one-half called "swamp," but most of it usually dry and very fertile. Mississippi, $1.50 to $5 per acre, quality good. Scott, $3 per acre; northern part of the county hilly, and produces wheat, Indian corn, rye, barley, tobacco, fruits, &c.; the eastern and western parts, rich bottom land (which sometimes overflows); the central and southern parts sandy and differs in productiveness. Cape Girardeau, $1 and upward; four-fifths of the area of the county susceptible of cultivation; one-fifth suitable for pastures; some portions suited to the vine and other fruit culture. Madison, $3; rolling, heavily timbered with oak; soil thin. Iron, $1.25 to $10; various qualities. St. Genevieve, average $1; varies in quality from good, gently undulating, to thin and rocky lands. Jefferson, $20 to $25; nearly all the hills or ridges have been tested in fruit-raising, and proved successful. St. Louis, unimproved farm lands average about $70 per acre; hilly land about $30; bluffs along the rivers $10; the hills tolerably good farming lands, but good for fruit; the bluff lands rocky and of little value except for wood, though, as far as tried, grapes do well. Lincoln, $7.50; some of the best land unimproved for want of population; 422,945 acres in the county; population, 13,000. Pike, $10, and Montgomery, $8; adapted to wheat, Indian corn, tobacco, &c. Audrain, $6; good prairie lands; Lewis, $6.50 to $15 for prairie, and $15 to $25 for timber; three-fifths of the county timbered, the other

two-fifths rolling prairie; Clark, $5 to $10; Scotland, $6.50; good upland prairie and rich bottoms; Linn, $5, prairie, high and dry, soil generally good, slightly sandy; will produce all the crops of the latitude—corn about 40 bushels, and wheat 20 bushels to the acre; Livingston, average, $13; prairie and timber; black, loamy soil; rolling prairie and river and creek bottoms. Mercer, $4 to $7, largely held by non-resident speculators; about two-thirds of the county unimproved, about equally divided between timber and prairie; high and rolling, nine-tenths susceptible of remunerative cultivation. Harrison, $1.25 to $5; black loam, quality good; Gentry, prairie $3, timber $12; the country is rolling prairie, with an abundance of timber; soil rich, dark loam, 20 inches deep, with clay subsoil. Nodaway, $4; capable of producing the crops of the latitude, particularly corn and grass; medium for wheat. Holt, $5, for lands lying near settlements; much not worth over $3 or $4; large tracts are held by speculators at $7 to $10 per acre. DeKalb, $10, upland prairie; La Fayette, $20 for prairie, claimed to be of finest quality, soil four feet deep; inferior quality, $10 per acre, will yield good crops of wheat, corn, oats, &c. Buchanan and Jackson, $20; Ray, $8; will produce wheat, corn, tobacco, &c. Johnson, $12; character good for farming purposes. Cass, $10 to $30 for timber and $4 to $15 for prairie; all good, tillable land, with from 12 to 30 inches virgin soil. Henry, prairie $6 to $10, timber $20 to $25; soil, alluvial limestone, black and rich. Bates, $6, limestone, with clay subsoil; prairie rolling, and on the ridges there is a good supply of lime and sandstone for building purposes. Vernon, about 350,000 acres of raw prairie in the market, at from $2 to $5 per acre; sandy loam and coarse black limestone soils, adapted to all the small grains and grasses. St. Clair $4, and Cedar $3; character diversified, from lands fitted only for pasturage to the richest of river bottom, which will produce 50 to 75 bushels of corn per acre. Dade, $2 to $5 for such as may be cultivated; considerable portions rendered unfit for cultivation by reason of mixture of rocks, sandstone, limestone, &c. Lawrence, $5; timber and prairie; three-fourths of the prairie susceptible of cultivation, all good grass lands; half the timber can be cultivated. Newton, bottom lands and best prairie, $10; inferior, $5 per acre. McDonald, $2 to $6; the county is broken and hilly; none but prairie or valley lands tillable. Green, lands fit for cultivation or in timber, $7; about 300,000 acres wild land in the county, 75,000 of which is owned by the Southwestern Pacific Railroad Company; prairie and timber, four-fifths cultivable. Christian, $3, and Texas, $1 to $5; partially timbered; soil gravelly, adapted to the culture of fruits, tobacco, and the cereals. Hickory, $4; lands productive. Dallas, $2 to $10; a portion susceptible of cultivation, the remainder valuable only for timber and pasturage. Phelps, $1 to $10;

mostly broken, with some little prairie, but chiefly timbered; the valleys are very rich, and good for corn, the uplands for small grains and fruit. Miller, $1.25 to $5; variety of soils, from dark limestone loam to light or chocolate-colored, and clay subsoil. Osage, $6; rolling, with a top loam from 6 to 10 inches in depth; Cole, $1 to $10; much of it excellent wheat, grass, and orchard land; a portion of the cheap lands will be useful only for sheep pastures, having a flinty, gravelly surface, covered with oak, hickory, and some grass. Moniteau, $8 to $12; capable of producing 40 to 50 bushels to the acre. Cooper, $10; suited to fruit culture. Boone, $10; fit for general farming. Calloway, $8; will grow tobacco, wheat, and grass. Howard, $5 to $10; soil thin but productive. Chariton, $7.50 for prairie, $20 for timber; soil equal to any in the country.

There is still a great deal of Government land in Missouri subject to entry under the homestead laws, or purchasable at the established prices for public lands. In 1860 the total area not included in farms exceeded 21,000,000 of acres, against about 20,000,000 taken up in farms, only about 6,000,000 of which was actually under cultivation.

MINERALS.—Missouri is rich in soil, minerals, and timber, and from its favorable location and great natural resources must at an early day take high rank among the great States of the Union. The Missouri River divides the State into two parts, having different physical characteristics. South of the river, as far west as the Osage, the surface is rolling, gradually rising into a hilly country. Beyond the Osage, at some distance, commences a vast expanse of prairie, stretching westward. The chief geological formations in these regions are solid strata of carboniferous and silurian limestone and sandstone, reposing on or around the unstratified primary rocks. In the hilly and broken regions, including a large portion of the State south of the Missouri, the soil is formed of disintegrated sandstone, and syenite and magnesian limestone. The soils composed of the latter materials are fertile, but in some parts of the mineral regions their productiveness is impaired by the admixture of iron oxides. That part of the State lying north of the Missouri is either rolling or quite flat, and in no place mountainous. The soils are equal to the best intervale lands, and cultivation is probably in a more advanced state than to the south of the river. Its geological substratum is chiefly carboniferous limestone, and the district is distinguished for its vast measures of bituminous coal. In the southeastern section of the State, from Cape Girardeau to the northern part of Arkansas, there are large tracts of marshy and inundated lands.

The principal minerals of the State are iron, lead, coal, copper, tin, limestone, sandstone, freestone, &c., &c. Iron is reported in greater or less abundance in Scott, Cape Girardeau, Iron, St.

Genevieve, Mercer, Cedar, Green, Texas, La Fayette, Newton, Phelps, Osage, Cole, and other counties; coal in Lincoln, Montgomery, Audrain, Shelby, Lewis, Scotland, Linn, Livingston, Mercer, Harrison, Gentry, La Fayette, Nodaway, Cass, Henry, Bates, St. Clair, Vernon, Dade, Cole, Moniteau, Boone, Calloway, Howard, Chariton, &c.; lead in Madison, Iron, St. Genevieve, Jefferson, Mercer, Vernon, Cedar, Newton, La Fayette, Green, Texas, Dallas, Osage, Cole, &c.; copper in Vernon, Cedar, Green, Texas, and Cole; tin in Iron; slight traces of gold in Mercer, but not in paying quantities; silver in Cedar; nickel and cobalt in Madison; limestone and sandstone in Scott, Lewis, Livingston, De Kalb, Buchanan, Phelps, Cole, &c.; salt in Fayette and adjoining counties; chalk and potters' clay in Scott and La Fayette; fire and potters' clay in Audrain and Cole; superior white sand in St. Genevieve; antimony in Cedar; and glass sand in Cole. Our Lincoln reporter says that a bed of coal, ten miles long, one to three miles in width, and of unknown thickness, underlies that county; shafts having been sunk in the bed to the depth of eighteen feet without getting through. In Calloway there is a bed of cannel coal twenty-five to seventy-five feet in thickness, extending for miles, it is claimed, and lying within four miles of the Missouri River. A vein of coal in Cole County, on the Pacific Railroad, has been bored one hundred feet without exhausting the coal measure. In particular localities these several minerals have been largely worked, but generally the mineral resources of the State have been but slightly developed, want of capital being the chief drawback.

Timber.—Walnut, hickory, elm, ash, oak, hackberry, linn, dogwood, maple, cotton, pecan, sassafras, and other varieties of timber abound in many sections of the State, and in few, if any, counties is there a lack of timber for home uses. In some counties lumbering is extensively engaged in. Our Texas reporter says they have thousands of acres of pine timber, with four steam and ten water power mills now sawing lumber. In Mississippi County the timber is said to be very fine: "oaks, five feet in diameter; poplars, eight feet; cypress, fourteen feet (exceptions, but plenty four to eight feet in diameter); but few mills, yet fifty mills could make fortunes here, as there is plenty of timber and good shipping facilities." Oak wood brings from four to five dollars per cord in Jefferson City, Cole County. The Pacific Railroad is here supplied with fuel for the distance west of this county, where the line runs more than one hundred miles through a prairie country; much is also sold to steamboats along the Missouri River. Railroad ties for the Pacific Railroad are also furnished from this point.

Crops.—Corn, wheat, oats, potatoes, tobacco, and hay, are the leading crops, but neither can be classed a specialty in any county,

though Indian corn is by far the heaviest product of the State, reaching nearly 47,000,000 bushels in 1866, and over 50,000,000 bushels in 1867. The wheat crop of 1867 reached nearly 5,000,000 bushels; oats, 4,300,000 bushels; potatoes, 1,100,000 bushels; tobacco, 11,600,000 pounds; hay, 680,000 tons. The average gross receipts from the several crops per acre were about as follows: Corn, $18; wheat, $25; oats, $15; potatoes, $71; hay, $19; tobacco, $92. The corn and hay crops, particularly back from railroad facilities, are largely consumed upon the farms where grown, by cattle, horses, mules, and hogs, stock-raising having been largely engaged in within the past few years as the most profitable branch of farming operations for the interior, distant from markets and railroads. Our Chariton reporter writes as follows:—

"Previous to the war, tobacco and hemp were specialties in this county, but since the change in our system of labor our farmers are rapidly adapting themselves to the change, and are turning their attention to stock-raising, for which our county is eminently adapted. Corn, wheat, rye, oats, potatoes, grass, and orchards are rapidly taking the place of the former crops, and our prairies being filled with cattle and mules, which will be more profitable."

Our Cole County correspondent says:—

"The old settlers grow mostly corn, which must be fed on the farm if made profitable, for only such as are within five miles of a shipping point can net 50 cents per bushel when the price in St. Louis is $1 per bushel. Eastern people and the Germans pursue a more varied husbandry, raising small grain for market, which finds ready sale at remunerative prices. The large merchant mills along the line of the Pacific Railroad are eagerly buying up all the wheat and rye to supply their milling capacities. Peaches, apples, and small fruits are becoming articles of freight west into Kansas, where all that can be shipped, find a ready market. Much attention is also being given to grapes, which will in a few years form a considerable item of our produce and trade westward. Hemp is a profitable crop in the rich bottoms, but labor for its cultivation is scarce."

Shelby County:—

Our principal crop is corn, timothy, and Hungarian grass. We raise and feed stock to get our money back. Our lands will yield 35 bushels of corn, and from one to one and a half tons of hay per acre, the corn selling at 30 to 60 cents per bushel, the hay $6 to $8 per ton.

Scotland County:—

Our farmers are giving the most attention to the hay crop, raising only sufficient grain for their stock. Taking the prices of the past few years as a standard, the profits of stock-raising far exceed those of any other branch of farming.

Cooper County:—

Wheat is the great staple of this county. The soil being of a porous nature, prevents the wheat from freezing out in winter. The average is about 20 bushels per acre. It costs about 75 cents to raise a bushel of wheat, worth $2.50 per bushel; profit per acre $30 to $40. Good wheat land is worth $40 to $50 per acre. So you see wheat is the most profitable crop.

De Kalb County:—

Wheat is the surest and most profitable crop. Average of wheat about 25 bushels per acre; corn, 40 bushels; oats, 35 bushels.

Phelps County:—

Until within a few years the principal crops were corn and its concentration, pork; but lately there has been more attention paid to the culture of wheat, and it bids fair to be of much importance, as we are having mills to convert it into flour, and railroads to export it. Corn will yield 25 to 50 bushels per acre in an ordinary season, worth 50 cents to $1 per bushel. Wheat in one instance, the past season, yielded 27 bushels per acre, but the average is not above one-half that amount, worth the present season $2 to $2.30 per bushel.

La Fayette County:—

Hemp is the special product, averaging about 600 tons annually. It is baled in the rough, and sold at river points to hacklers and shippers, at from $100 to $200 per ton. Flax does well, but is not raised extensively. Corn is next in importance, returning with very little labor, from 40 to 80 bushels per acre. The hoe is never used. With Eastern cultivation, 100 bushels and upward has been the yield. It is always a sure crop, and sells at from 30 to 60 cents per bushel. Wheat has been heretofore considered a doubtful crop, owing to the light quality of the soil allowing it to freeze out; this is obviated by sowing on rough ground or by drilling. But on newly broken ground the first three crops are certain; the second and third, generally the best. This season, on both old and new land, the crop is very abundant, and has been good for the last three years.

In Lawrence, profits are estimated as follows: Corn, $8.50 per acre; wheat, $10; oats, $12; Moniteau, wheat, $15 to $20 per acre. The average yield in St. Louis County, is given as follows: 15 bushels of wheat, 50 bushels of corn, 60 bushels of potatoes, 1 ton of hay.

Cotton is cultivated to some extent in some of the southern counties, but is not a certain crop, nor upon the whole as profitable as other branches of farming. Hop culture is receiving some attention in Gentry and a few other counties, the soil and climate being thought favorable.

But a small proportion of the crop is spring wheat, though in

a few of the northern counties it is given the preference, winter varieties being liable to freezing out in cold winters.

Fall wheat is generally put in the ground during the months of September and October, and the spring varieties in March and April; harvesting commences about the middle of June in the lower part of the State, extending to the middle of July, some of the spring-sown grain not ripening until August. In a majority of counties there is very little drilling, in many none at all, and no county reports more than one-half. In most localities, where tried, the drilling system is considered superior to the old mode, and is gradually being adopted. A correspondent says:—

"Wheat is largely cultivated, but generally badly managed; some, however, have used the drill to good purpose, and produced from 20 to 25 bushels to the acre."

Missouri wheat culture is no exception to the general system of the West—the largest possible crops upon the least amount of labor—almost every thing left to nature beyond the dropping of the seed. A correspondent writes:—

"The careful and scientific culture of wheat is not practiced in this county; no drills, and but few rollers. Wheat generally sown among the growing corn and 'scratched in' with bull-tongue plow. The only wonder is, that we harvest any crop from such culture; yet from 10 to 25 bushels are generally realized."

Another reporter says:—

"The mode of culture is rather primitive in most cases, the seed being sown broadcast and covered with a shovel or triangular plow; a few plow the ground and harrow in the grain."

Some plow stubble ground twice, sow broadcast, and harrow twice. Fallow ground is usually plowed but once. Our Madison reporter says:—

"The soil is generally broken about four inches in August or September."

In Iron County the general culture is breaking the soil, sowing, and harrowing or brushing in; in dry seasons sown among the corn and plowed in. The average yield of wheat per acre in Missouri in 1866 was 16¼ bushels; and in 1867 about 12¼ bushels.

Hay and Pasture.—The wild prairie grasses, blue-joint, June grass, rye grass, white clover, sage, and swamp grasses, furnish the natural pastures of Missouri, the native prairie grass being generally superseded by blue grass, which appears in all sections of the State where the prairies are pastured freely. Timothy, orchard grass, red-top, and red clover are the principal cultivated grasses, but the prairies are the chief reliance for the subsistence of stock during the pasturing season, which is reported as ranging from six to eleven months in length in the several counties, the average in the State being about eight months, during which

stock can do well upon pasture alone, though a number of counties name nine months, and Pike runs up to eleven months. Our Chariton reporter writes upon this subject as follows:—

"Blue grass mixed with white clover in our pastures and commons, and on our prairies a luxuriant growth of prairie grass mixed with blue grass around farms. In some seasons stock will keep fat on the pastures until December. Pasturage on our prairies are free. The cost of herding large herds is about 20 cents per month per head; in pastures about $1 per head per month for cattle, horses, and mules, and about 15 cents per head for sheep. For wintering stock (about five months), about $12 per head for cattle, $20 per head for horses and mules, and $1 per head for sheep."

Our Green reporter, in the southwest, says that stock can feed exclusively on pastures nine months in that section, and he has seen stock pastured all winter and come out in the spring in good condition, the mode being to take the stock off blue grass in August and turn on again in December. In many cases stock subsist through the winter in the woods, and in the marshes and wet lands, and the hogs get fat upon the mast in winter without corn. The cost of pasturing cattle is but trifling in most localities, the range being free, and the only expense that of salt and herdsmen, and frequently the services of the latter are dispensed with. Our reporters return various figures under this head, from "no expense" up to $1 per head per month.

FRUIT.—With but two or three exceptions our correspondents speak favorably of the capabilities of their respective counties for fruit culture—apples, peaches, pears, plums, grapes, and the various small fruits, being generally successful, though in the northern part of the State peaches are uncertain, in some localities averaging not more than one crop in three or four years. A few extracts from reports of correspondents in different sections of the State will serve to illustrate the general character of counties adjacent.

St. Louis:—

This county is well adapted to fruit culture. Peaches are fine, and crop enormous, but are winter-killed at least once in three years, and partially so three times in five. Spring frosts hardly ever affect them. The Concord grape is entirely healthy here, never fails, and will yield under good treatment 10,000 to 12,000 pounds per acre; average about 8,000 pounds; never selling less than fifteen cents per pound.

Shelby County:—

Nearly every farm has an orchard, and the trees do well. Apple, pear, and plum trees bear nearly every year. Peach-trees grow thrifty, but do not bear more than one year out of two; but when they do bear they yield well, and the fruit is of superior

quality. Many of our older orchards yield fifteen to twenty bushels to the tree, worth seventy-five cents per bushel.

Howard County:—

This being one of the first counties settled has more fruit than any county except St. Louis. Winter apples are chiefly cultivated, and three-fourths of the trees are Rawle's Jenneting, though most varieties of summer and winter apples do well. I have in my grounds, now nine years old; of summer apples: Strawberry, Harvest, Astrachan, Early Joe, Early June, Summer Pearmain; and of winter and fall kinds: Rambo, Swaar, Spitzenburg, Rhode Island Greening, Northern Spy, Newtown Pippin, Fall Pippin, Golden Pippin, Lady Apple, &c., which are bearing freely and promise well. Peaches are very uncertain, except on the bluffs near the Missouri River. Standard and dwarf pears do well if properly trained and cared for. Nectarines and apricots uncertain, though I have had some fine crops. About 1,600 barrels of winter apples were shipped from our village (Glasgow) last fall by river, at 50 cents per bushel, though on the North Missouri Railroad, passing through the next tier of counties, the same varieties brought $1 per bushel.

Linn County:—

Our capabilities for fruit are very fine. We produce apples, pears, plums, peaches (about half the seasons), grapes, quinces, and all the small fruits. Apples, pears, and plums have not failed in ten years. Apple trees five years from the nursery last fall yielded $10 each in fruit. Many trees have been set during the war. Grapes are doing well; no mildew or rot for three years past, nor previous to that, except on Isabella. Varieties grown here: Concord, Clinton, Hartford Prolific, Delaware, Roger's Hybrid, No. 15, Isabella, Catawba, &c.

Chariton County:—

Apples are very profitable, and peaches do well when not killed by frost, and are very fine. Grapes succeed well. The past season peaches sold at from $1 to $4 per bushel; apples, 75 cents to $1 per bushel; grapes, 20 cents per pound. One farmer in this vicinity sold $2,500 worth from his orchard, the fruit being gathered by the purchasers. Another, from an orchard of about 1¼ acre, realized about $600.

Cass County:—

Splendid fruit country; apples most plentiful. Last season (1866) was an average crop. E. P. West, from twenty fifteen-year-old trees, gathered 300 bushels. Several orchards of from 120 to 150 trees, of about the same age, produced upward of $1,000 each at home. The Union Pacific Railroad will give us an unlimited market. Peaches bear three years in five.

In Livingston, one gentleman gathered from 100 trees 1,000 bushels of apples, worth 75 cents to $1 per bushel; peaches do

not succeed so well; pears grow large and delicious; many persons are putting out vineyards, but the business is yet new. In De Kalb, one small orchard of twenty-seven trees, set nine years, yielded 117 bushels of apples, worth 75 cents per bushel; peaches yield about once in three or four years; pears, cherries, &c., do well. Our Pike reporter says that 50,000 bushels of apples are annually shipped from that county. In Lincoln, an orchard of 1,200 trees, fourteen years old, yielded $1,500 worth of apples last year, at $3 per barrel. Our Miller County reporter says:—

"I have never known any place to exceed this for fruit. Apples and pears receive most attention, but pears, grapes, and all the small fruits do well. I have one apple-tree (Winesap) only six years old from the seed, which last season yielded one bushel of good, well-grown fruit; the tree is three inches in diameter. A dwarf pear-tree, only four years from the bud, ripened seventy pears of the Seckel variety. Beat that anywhere else, and let us hear of it."

In Cooper County, apples rarely fail, and our correspondent says that ten acres, set out in good winter varieties, will be a fortune to a young man; he can set forty trees to the acre, which will bear in about five years, when he can get $5 per tree for his fruit standing, $200 per acre, $2,000 for his orchard. Our Cole reporter says:—

"All our uplands, ridges, and hills are specially adapted to the growing of peaches, apples, and grapes. We have already varieties of apples which are a sure and profitable crop. Early peaches, except chance seedlings, are still on trial; the Early Crawford has failed for two years past on account of ice in March, or perhaps from neglect. Late peaches do well. Cherries, pears, plums, &c., grow well. One pear orchard of several thousand trees is a failure, either from an unlucky choice of varieties or from want of proper cultivation. Grape vines do exceedingly well in soil which was at first thought sterile. Strawberries grow luxuriantly."

In the western and southwestern portions of the State, fruit culture promises to become a profitable branch of farming operations, a number of counties reporting the setting out of orchards of apples and peaches on an extended scale. Our La Fayette reporter writes as follows:—

"I think we can beat the world in fruit culture. We export north of the river to Kansas, Nebraska, Iowa, and to all the Territories. Last year (1866) the crop was short, but still enormous. From all the data at hand, I should estimate the crop of 1867 at not less than $500,000, besides home consumption."

The culture of the grape is encouragingly spoken of from various quarters. Our Dade reporter says:—

"As to fruit, our soil is wonderfully adapted to the growth of

all kinds of fruit, especially the grape, apple, &c. The grape grows here spontaneously in astonishing quantities, and of quality almost equal to the imported varieties. Your correspondent could any day during the grape season fill his wagon-bed with grapes that grow spontaneously on the brush-land of his premises, and might repeat it for many days."

Jefferson County:—

Fruit is our specialty, including grapes, apples, peaches, pears, and all the small fruits. The grape-vine grows wild all through the woods, the fruit hanging from our largest forest-trees. The vines grow from 10 to 20 feet the first year, and bear almost a full crop the second year. A peach bud will grow an inch in diameter and eight feet high the first year on a two-year-old root. Our soil, climate, and elevation combine to make Jefferson the great fruit and wine county of Missouri. Our grapes and strawberries are 10 or 12 days in advance of any in the market. The grape and apple crops never fail; peaches have failed but once in 33 years, viz., in 1865. Peaches yielding $500 per acre, apples $300, pears $750, and grapes $900 to $1,000, are considered average crops. There are 350,000 fruit-trees, and 250,000 grape-vines now planted in this county, with room for ten times the number.

CORRESPONDENCE.

CHILLICOTHE, LIVINGSTON COUNTY, MO., *July* 27, 1868.

SIR:—* * * We are fully alive to the importance of bringing before the emigrant the advantages our State offers him.

The special inducements offered now to the emigrant to our part of the State, are the numerous railroads now opening up, our excellent soil, and healthy climate. Lands are at present low, but rapidly advancing in price, especially upon the lines of railroad, where numerous towns are springing up, offering the emigrant immediate employment and remunerative wages, so that he may shortly buy land, and be independent. * * * I might add that the Grand River Valley is, by common consent, considered to contain the richest and most productive land in this portion of the great Mississippi Valley. The river is navigable to this point, at moderately high water.

Respectfully, etc.,
WM. McILWRATH.

F. B. GODDARD, Esq., New York.

Messrs. BEAZELL & BERRY write from *Chillicothe*, July 28, 1868:—

* * * Our beautiful little town of 5,000 inhabitants, is situated in the heart of Grand River Valley, which contains the rich-

est land in the State. * * * Emigrants are coming in rapidly, and we are growing fast in wealth and population. * * * Improved farms, 2 or 3 miles from town, are worth from $30 to $50 per acre; unimproved, $15 to $20. Ten miles from town, improved, $20 to $25; unimproved, $8 to $12. River and creek bottom lands can be got for from $5 to $7. Wheat is worth per bushel, $1.50; oats, 30 cts.; corn, 50 cts.; potatoes, $1; butter, 25 cts.; beef, alive, 4½ to 5 cts.; pork, gross, about the same; beans, $6; rye, 80 cts.; apples and peaches 75 cts. to $1. Good work-horses and mules, $100 to $125.

From *Warrenton*, Warren Co., July 28, 1868, Mr. P. P. STEWART writes:-

I have lived in this county 37 years, and have been a tiller of the soil. * * * Improved farms can be had for from $10 to $30 per acre. * * * We raise all the grains, tobacco, fruit, &c. * * * Farm hands, carpenters, blacksmiths, wagon-makers, masons, coopers, &c., are the kind of laborers most in demand here. * * * We have coal in abundance. * * * There are no Government lands in this part of the State. Our school and religious advantages are excellent. We have a mixed population; many Germans.

From *Gentry County*, July 30, 1868, Mr. JOHNSTON writes:—

* * * Raw lands, from $3 to $10 per acre, according to locality; improved, from $10 to $20. No Government lands. Wages of farmers, $1 to $1.25 per day, $20 per month. Twenty years' experience of this country, has proved to me that it is healthy.

From *Kansas City*, Aug. 11, 1868, Messrs. THACHER & WEBSTER write:—

* * * The price of land, immediately about the city, ranges from $50 to $500 per acre, owing to improvements and eligibility. This includes land within one and two miles. Unimproved land in Jackson Co., Mo. (this County), and Johnson Co., Kansas (adjoining), range from $5 to $30 per acre. Good improved farms from $25 to $50 per acre. There are no lands near this point, in either Missouri or Kansas, which can be pre-empted. Southern Kansas is the nearest point where any Government land of good quality can be pre-empted. Good bricklayers get from $5 to $5.50 per day; carpenters $3 to $4 per day; laborers $2 and $2.50 per day.

Corn sells at from 60 cts. to $1 per bushel; wheat, $2 to $2.10 for winter wheat. We have a good market, both east and west of us. This region is splendidly adapted to fruit. We have good public schools, and some fifteen churches. The inducement to emigrants is, the best land in the world at a fair rate; the *best* climate in the world, and soil adapted to any thing.

Very truly,
THACHER & WEBSTER

Our correspondent at *St. Charles* says lands are worth from $20 to $200 per acre. St. Charles Co. is considered the best wheat county in the State. Climate good. Plenty of coal and timber. Harvest labor this year was $2.50 to $3.50 per day; last year as high as $4 per day.

From *Linn County*, August 17, 1868, Mr. E. J. CRANDALL writes:—

* * * * The great rush of settlers to North Missouri this present season, so greatly in excess of that of any former year, is so marked and rapid, and characterized by so much intelligence, enterprise, and vigor, as to be a source of wonderment to many.

* * * * * * *

The general face of the country is high and gently rolling prairie, watered by numerous streams that are skirted with a variety of timber. The larger streams being generally bordered by more or less bottom or grass lands. * * * *

One man in this county has just finished thrashing a crop of two hundred and seventy acres, which averaged him nearly thirty-one bushels per acre and netted him here over two dollars per bushel. I harvested from 20 acres of new ground, from first plowing, twenty-eight bushels per acre, or over 560 bushels from 20 acres, all winter wheat.

Mr. JOSEPH L. STEVENS writes from *Columbia*:—

* * Our soil is a good average of the State, abounds in fine farms and orchards, and may well be termed the Blue Grass region of the State.

From *Huntsville*, Randolph County, July 30, 1868, Mr. W. R. SAMUEL writes:—

* * Country about equally divided into prairie and timber; soil, clayey loam, and very fertile. Price of improved farms $10

to $50 per acre. Farm laborers are much wanted at good prices. Good flouring mills are much needed. Plenty of coal. We have much blue grass, which the farmers think as valuable as an average corn crop.

Mr. JAMES W. OVERTON writes from *Fulton*, Calloway County:—

* * Soil varies in quality from the light oak ridge soil to the rich black loam of the Missouri River bottom. Price varies from $2.50 to $50 per acre; from $10 to $20 might, I think, be considered an average for good improved farms. The supply of labor is nothing like equal to the demand.

Mr. BRYAN writes from *Moniteau County*:—

There is no Government land near here worth entering. We have good lands from $2 to $10 near railroad. Farms much improved range higher.

Messrs. ROGERS & SHAW of *Princeton*, Mercer County, write:—

* * Both prairie and timber land; soil, black loam; unimproved, worth $3 to $15; improved, $10 to $40. Are now fifty miles from railroad, but shall have one within two years.

From Messrs. SMITH & KNIGHT of the Immigrant Aid Association, *Kirksville*, July 29, 1868:—

County diversified by prairie and timber; abundance of running water. Improved land is worth $5 to $30 per acre. Unimproved, $2.50 to $15

From our *Shelby County* correspondent, July 29, 1868:—

We have excellent farming lands: price for 20 miles round, improved, $20 to $40; unimproved, $5 to $15.

From Mr. Low, *Caldwell County*, July 28, 1868:—

Our soil is a deep, rich, black loam, which is in itself exceedingly rich after a short exposure. Unimproved lands in this section

are worth from $6 to $20; improved, $20 to $50. Labor is in good demand. The people in this county are principally of Eastern origin, and of course schools and churches abound.

Mr. KINKEAD writes as follows from *Jackson County:*—

The price of farming lands, improvements included, near Westport from $30 to $2.50 per acre; unimproved lands from $10 to $1.25 per acre. Natural production of land, blue grass; subsoil, red clay; timber and prairie, pretty well divided. The same description extends throughout the county, except in price, which varies in cheapness as you go from Westport and Kansas City, the latter place being distant from the former 3½ miles, with good macadamized road to same.

From *Pacific*, Franklin County, Mr. E. KNOBEL writes:—

* * North of the Missouri River, all St. Louis County, all above Cole County, on the south bank of Missouri River, north of Township 44, and along the Kansas line, is, with few exceptions, very good land; in some parts, superior land, and can be taken as a fine farming country, in general. The other part of the State is chiefly hilly, with good lands in the bottoms, on the slopes, and sometimes fine table-lands on the top of hills. In the center of this part there is a great extent of prairie, but particularly along the Kansas line, and in North Missouri, and in the southwest.

From *Lancaster*, Schuyler County, July 30, 1868, Mr. A. J. BAKER writes:—

Our farming lands are mostly prairie, black sandy loam, and very fertile. Farm labor scarce and high. We need a tinner and stove man, bricklayers, carpenters, cabinet-makers, carriage manufactory, and painters. Price of land from $5 to $25 per acre.

Ironton, Iron County, August 6, 1868. From this point Mr. FRANZ DINGER writes:—

* * * Close to town, No. 1 land is worth from $25 to $1.25; two to three miles off good land from $10 to $25 per acre, and sceond class land from $5 to $25 per acre; wild land entered from $1 to $10 per acre. There is not much good land in this county that is not already taken up. Corn, wheat, oats, rye, potatoes, are the general products. It is the best country for fruit culture and wine-raising; also the hilly lands are well adapted for sheep-

raising; in this county lie the celebrated Pilot Knob Hill iron banks; there are fine prospects of lead in this county. Near by are the rich Iron Mountain iron banks, as also in Madison County, joining the celebrated lead mines, called Mine La Motte. In the southern part of this county are found rich iron banks, also, prospects of copper and tin. Near by, within twelve miles, are the rich lately discovered tin mines. Climate mild and very healthy.

Coal has not as yet been discovered in this county or close vicinity. The terminus of the Iron Mountain Railroad is one mile north of us. Public schools in every district, and the county is well supplied with fine churches. The price of common labor is from $1.50 per day to $2.50 in the iron works; carpenters from $2.50 to $4.50 per day. Wages are generally good. There is not very much rich land in this county, but the uplands are very good, and well adapted for fruit-growing. The mineral resources are great. The country south of us in this State is not very much populated, owing to the war, but is now rapidly filling up. It is my opinion that southeast Missouri has been much neglected, and will yet prove to be the richest part of the State. Of the older inhabitants, a small proportion are emigrants from Tennessee, but the largest portion are Germans, and many from the Eastern States. Wool-growing here will pay well. The contemplated extension of the Iron Mountain Railroad will go through this county south.

From *St. Joseph*, Buchanan County, July 28, 1868, Mr. THOMAS HARBINE writes:—

* * This is the second largest city in the State, and now contains 25,000 inhabitants. No city in the West has been more prosperous since the war, and none offers greater inducements to the emigrant. The laborer and mechanic are in great demand. We also especially want paper mills, agricultural implements, wagon manufacturers, oil mills, and match factories. * * * We have among us the best public schools in the country, open ten months in the year. * * Potatoes bring at retail 70 to 80 cents per bushel; butter, 25 cents per lb.; cheese, 15 cents; eggs, 20 cents per dozen; fish, fresh, 15 cents per lb.; beef, 10 to 15 cents; mutton, 10 to 12 cents; pork and veal, 12 cents. * * Soil, a deep black loam, and very fertile. Face of country diversified and rolling; unimproved land varies in price, from $15 to $40 per acre; improved $20 to $50. * * No farmer, with two or three thousand dollars, can make a better investment than here in Buchanan County. * * * * * * * *

WISCONSIN.

It was the original intention of the compiler of this work to treat only of the Southern States, and the States and Territories lying beyond the Mississippi River; but the large amount of public land that may yet be secured, and the many advantages offered the emigrant in some of the Northern States to the east of the great river, have induced the belief that a book of this kind would be incomplete unless its scope was enlarged to include, at least, the attractive States of Wisconsin, Michigan, and Illinois. The emigrant may conclude, upon investigation, that in crossing the Mississippi, he might "go farther and fare worse."

Wisconsin was organized as a Territory in 1836, and admitted as a State in 1848. Its population, in 1860, was 775,881, which has increased to more than a million at the present time. The greatest proportion of the foreign-born inhabitants are from Germany and Scandinavia, or the kingdoms of Denmark, Sweden, and Norway. The State lies between Lake Michigan and the Mississippi River, and extends from the State of Illinois on the south, to Lake Superior on the north.

Wisconsin has an area of 53,924 square miles, or 34,511,360 acres, of which about 10,000,000 acres are yet unsold, and open to the settler.

There are no mountains, or even high hills in Wisconsin. Its whole surface is a vast rolling plain, elevated from 500 to 1,500 feet above the ocean, sloping down to the lakes, or to the streams which drain it. At Portage City, the Wisconsin River, emptying into the Mississippi, and the Fox River, flowing into Green Bay, approach so nearly, that their waters commingle. They are joined by a short canal.

The surface of Lake Michigan is lower than any portion of

the State, being 578 feet above the sea; and the numerous streams which flow into it are so abrupt in their descent, and so full of rapids as to render them unnavigable; but they present admirable facilities for manufacturing. The descent of Fox River from Lake Winnebago to Green Bay, is 170 feet, affording a succession of the most valuable water-powers in the West. The Mississippi River flows for 200 miles along the western border of the State, and streams innumerable, both large and small, water nearly its whole surface, and beautifully diversify its scenery. The State possesses many characteristics in common with Minnesota, which forms the larger portion of its western boundary.

Like Minnesota, Wisconsin abounds in lakes, especially in its central and northern portions. They are most numerous around the sources of the St. Croix and Chippewa rivers. In this region the surface is studded with them. They are from one to twenty miles in extent, and form, in their picturesque loveliness, one of the most charming and attractive features of the State. They also contribute to render portions of the State a paradise for the fisherman and the hunter, their deep and pellucid waters being filled with trout, pickerel, perch, &c., and, at some seasons of the year, almost literally covered with geese and ducks of great variety, and other water-fowl, which subsist upon a kind of wild rice that grows abundantly in the shallow waters.

The climate of Wisconsin is cold, but agreeable. The eastern tier of counties is considerably moderated, both in the cold of winter and the heat of summer, by the waters of Lake Michigan. It is stated that the average temperature upon its shores is six and a half degrees Fahrenheit, warmer than at corresponding points on the Mississippi. The southern portion of Lake Michigan never freezes over in winter, but is filled with vast fields of drifting ice, which impede navigation. The harbor of Milwaukee rarely remains closed more than about three months of the year. Frosts in the northern part of the State are always preceded by snow, which covers vegetation, and preserves it from injury. In the southern section, some win-

ters pass with very little snow, but it frequently covers the ground to the depth of 12 to 18 inches, especially in the interior, in districts remote from the lake.

There is a certain dryness about the air of Wisconsin, which also characterizes Minnesota. This fact contributes to render it, in common with that State, one of the healthiest portions of the United States. The winters are severe, and linger along well into spring. The summers are short, but intensely warm, and the heat quickly accelerates the growth of vegetation. Autumn is the pleasantest season here, as it is in a large portion of the United States. This season is marked in Wisconsin by a long succession of mild and delightful days.

"Nearly all the northern half of the State abounds in pine, balsam, hemlock, and other cone-bearing evergreen trees, of which the white pine, usually towering far above the other trees of the forest, is the most common. The great prairies of Illinois extend into several of the southern counties of Wisconsin, between which and the heavily timbered districts, there is a region of openings in which the bur oak chiefly abounds. A line drawn from Racine, on the eastern shore of Lake Michigan, in a northwest direction, will mark the boundaries between the openings and the heavily timbered lands. The red oak is the only species of oak that extends as far north as the shores of Lake Superior."

Pine lumber is annually exported in immense quantities from the northern part of Wisconsin. It has been chiefly obtained from Ashland County, which borders on Lake Superior. This county has the greatest elevation of any portion of the State, and is the least settled and improved. It is almost one dense pine forest, alternating with lakes.

Wisconsin is also rich in minerals. Lead is the most important product under this head. It is found chiefly in the southwestern part of the State, in Grant, Lafayette, and Iowa counties; its ores in these localities being very rich and abundant. Vast quantities of iron ore are found in Dodge County, Sauk County, Jackson County, and in Ashland County, near Lake Superior. Copper, both native and in the ore, and

zinc, have been found in various parts of the State. Limestone also occurs, and beds of peat and marl are found in the marshes.

Mr. J. W. HUNT, in his Gazetteer of Wisconsin, published in 1853, says:—

The natural feature peculiar to Wisconsin is the uniformity of its elevation, and shape of its surface, which is neither mountainous, hilly, nor flat, but gently undulating. The country west of Sugar River and south of the Wisconsin is somewhat broken, principally by the dividing ridge upon which the road from Madison to Prairie du Chien passes. In this section, known as the Mines, are several peculiar elevations called Mounds. West of the Wisconsin River is a range of high hills, being the only elevations in the State either deserving or assuming the dignity of mountains. The southeastern portion of the State is marked by ravines at the streams, but little depressed below the surrounding level. Its prominent features are the prairie, destitute of tree or shrub, covered only by a luxuriant growth of grass, interspersed with flowers of every hue; the oak opening, the lake, the woodland on the border of streams, and the natural meadow. Proceeding north, to the Fox and Wisconsin rivers and Green Bay, the timber increases, and the soil gradually changes from the vegetable mold of the prairie to a sandy loam. The surface also becomes somewhat depressed and uneven, diversified with timber, rolling prairie, large marshes and extensive swamps, having an abundant growth of cranberries and wild rice. Still, north and west the surface becomes more uneven, and the streams rapid, affording an abundance of water-power for the manufacture of lumber from the immense forests of evergreen, scarcely surpassed on the Western Continent.

The soil of the prairie consists of a dark brown vegetable mold, from one to two feet in depth, very mellow, and entirely destitute of stone or gravel, and for fertility and agricultural properties can not be surpassed. The subsoil is a clayish loam, similar to the soil of the timbered lands, and is also suitable for cultivation. The soil of the timbered land is less rich than the prairie, not so deep, and contains less carbonate of lime, which enters into the composition of the latter in the proportion of from 20 to 40 per cent. The mining region, unlike that of any other mineral district, promises a liberal reward as well to the farmer as to the miner. The soil of the evergreen district is mostly sandy, and not so rich as in other portions of the State. It is, nevertheless, well adapted to agriculture and grazing. The *prairies* of Wisconsin are not so extensive as those of other States, and are so skirted and belted by timber that they are well adapted to im-

mediate and profitable occupation. The *openings*, which comprise a large portion of the finest land of the State, owe their present condition to the action of the annual fires, which have kept under all other forest growth, except those varieties of oak which can withstand the sweep of that element. This annual burning of an exuberant growth of grasses and of underbrush has been adding, perhaps for ages, to the productive power of the soil, and preparing it for the plowshare. It is the great fact, nature has thus "cleared up" Wisconsin to the hand of the settler, and enriched it by yearly burnings, and has at the same time left sufficient timber on the ground for fence and fire-wood, that explains, in a great measure, the capacity it has exhibited, and is now exhibiting, for rapid settlement and early maturity. There is another fact important to be noted in this connection. The low level prairie, or natural meadow, of moderate extent, is so generally distributed over the face of the country, that the settler on a fine section of arable land finds on his own farm, or in his immediate neighborhood, abundant pasturage for his stock in summer on the open range, and hay for the winter for the cutting —the bounty of nature supplying his need in this behalf till the cultivated grasses may be introduced and become sufficient for his use.

Commissioner WILSON, in the last published Report of the General Land Office, says of Wisconsin:—

The soil in the southern part is remarkably productive, and even in the mineral regions of the northwest it is well adapted to grazing. In the country lying upon Lake Superior, the overlying deposits of drift and bowlders, and the presence of swamps and marsh, limit the agricultural character of the soil.

* * Wisconsin is less liable than other new places to the diseases incident to new settlements, and compares favorably, as to salubrity, with other States, owing to the openness of the country.

AGRICULTURAL.—The agricultural statistics of the State indicate extraordinary wealth in production and quality in wheat, rye, maize, oats, barley, hay, clover, grasses, hops, flax, and potatoes. Tobacco is cultivated quite successfully, while the yield of the dairies in butter and cheese, and of the vintage, is abundant, as also of maple-sugar, molasses, sorghum, honey, and wax; the products of the orchard and market gardening returning large rewards to the agriculturist. The aggregate results in 1860 reached in value upward of thirty-six and a third million of dollars, being an enormous increase in percentage over previous decennial returns.

MANUFACTURES.—The manufacturing establishments in 1860 numbered 3,064, with a capital invested of $15,831,581.

The value of the raw material absorbed and cost of production equaled $21,406,042, the total product having reached $27,849,467, leaving a profit of $6,403,425, or upward of 40 per cent. upon the capital invested.

The necessities of a new country still limit the range of these establishments to the production of articles for common use, or in preparing the original products for the more elaborate processes of art elsewhere; yet the tendency to introduce higher branches of manufacturing industry becomes more evident as the resources of the State are developed.

The facilities for propelling machinery found in the various water-courses of Wisconsin, invite large investments of labor and capital in the extension of manufacturing enterprise.

MINERALS.—The mineral resources of the State are varied and valuable. The lead region of Illinois and Iowa extends over an area of 2,140 square miles in Wisconsin, which compares with the other portions in the abundance and richness of the ores. In 1863 there were 848,625 pounds of lead received at Milwaukee. The completion of the Southern Wisconsin Railroad will raise the aggregate to 2,500,000 pounds. It is mingled with copper and zinc ores.

The iron region of Lake Superior presents within the limits of this State abundant deposits of great richness. Magnetic iron, plumbago, and the non-metallic earths abound. Copper deposits have also been developed, but as yet have only been worked to a limited extent. Beautiful marbles, susceptible of elaborate working, exist.

The mineral productions are rapidly opening a very inviting field for capital and industry, promising an immense addition to the resources of this energetic young State.

MISCELLANEOUS.—Its railroad interests are assuming magnificent proportions.

In 1866 there were completed and in full operation 1,731 miles, representing a capital of $14,099,400.

A canal is proposed, to connect the waters of the Mississippi with the lakes, through the medium of Rock River and Lakes Horicon and Winnebago, which is to have the full capacity of the New York and Erie Canal, with another route by way of Fox and Wisconsin rivers, these canal routes having been surveyed by competent engineers, and pronounced entirely practicable.

Madison, the capital of the State, is handsomely located on an isthmus between Lakes Mendota and Monona, its situation being the most picturesque and beautiful of any of our western capitals. The city is well built, contains the State buildings, the State University, newspaper establishments, banks, churches, iron founderies, a woolen factory, and steam mills.

Its population in 1865 was 10,000. The charming scenery around, salubrious atmosphere, business advantages, and educational interests will cause it to be a large and flourishing city.

Milwaukee, at the mouth of the Milwaukee River, and seventy-five miles, by lake coast, above Chicago, is a fine, thriving city, and a prominent railroad center in the Northwest. Milwaukee's commercial and manufacturing importance are annually increasing with extraordinary rapidity. It is especially celebrated for the manufacture of a superior article called Milwaukee brick, which is largely exported to different parts of the Union.

It is the greatest *primary* wheat market in the world. In 1862 the receipts of wheat, and of flour reduced to wheat, were nearly 18,000,000 of bushels.

The other cereals were shipped in less quantities, but showing astonishing aggregates. The elevators and warehouses of Milwaukee have a capacity to store about 5,000,000 bushels of grain. The tonnage owned at this port in 1863 was 31,780. Lines of steamers cross the lake and communicate with the Detroit and Milwaukee Railroad.

The extensive water-power of Milwaukee River affords splendid facilities for manufacturing, and is in process of rapid development.

There are in the city, churches of superior architecture, and public schools embracing a large number of departments, the Milwaukee Female College, and several academies affording facilities for the higher elements of education.

The city contains banks, daily and weekly newspapers, orphan asylums, and hospitals; its population in 1867 having reached 75,000, with steady rate of increase.

Among the prominent towns of the State are Beloit, on Rock River, Columbus, Dodgeville, Fond du Lac, Green Bay, Portage, Prairie du Chien, Janesville, and La Crosse.

The finances of Wisconsin are in fine condition, the government economically administered, the burden of State taxation exceedingly light.

The educational interests, amply endowed and prosecuted with energy and intelligence, must result in important benefits to the rising generation.

The following, relative to the price of unimproved lands in Wisconsin, &c., was collated by J. R. DODGE, Esq., statistician of the Department of Agriculture at Washington, and published in April of the present year, in the monthly report of that Department:—

INCREASE IN THE VALUE OF LAND SINCE 1860.—On the basis of the county returns received from Wisconsin, the average in-

crease of the value of farm lands in the State since 1860, may be estimated at from 45 to 50 per cent., but one county reporting "no advance" since that date. Sauk County, the great hop district, shows the largest increase, our reporter stating that lands averaging $6 per acre in 1860, are now held at $35 per acre, an advance of nearly 500 per cent. Calumet, on the eastern border of Winnebago Lake, reports an increase of 150 per cent.; Chippewa and Marathon, in the northern part of the State, La Crosse, in the western, and Green Lake in the central part, 100 per cent.; Pierce, Trempeleau, 60 per cent.; Clark, Buffalo, Jackson, Washington, Brown, Outagamie, 50 per cent.; Ozaukee, 40 per cent.; Vernon, Lafayette, Rock, Walworth, Fond du Lac, 30 to 35 per cent.; Monroe, Richland, Crawford, Green, Racine, Portage, Columbia, and Marquette, 20 to 25 per cent.; Kenosha, 15 per cent.; Winnebago, 10 per cent., and St. Croix, 5 per cent.; Douglas alone reporting "no change."

PRICE OF UNIMPROVED LAND.—The value of the wild or unimproved land in the State is variously returned from the several counties, running from 75 cents up to $50 per acre. In Sauk County the average is fixed at $4.50 per acre; mostly broken, stony, and barren, covered with stunted jack oaks, but capable of growing light crops of hops, corn, wheat, potatoes, &c., and in choice selections, some of the hardy fruits. Columbia, $8 per acre; but little in the county, quality fair; mostly openings, sandy, with clay subsoil. Marquette, $2.50; chiefly good for pasture. Green Lake, $10; mostly timber-land and marsh. Portage, $2 to $10; embracing all grades, from rich alluvial bottom to high mountain range. Outagamie, $15; soil, mostly black loam, with a substratum of stiff red clay, capable of producing all farm crops usually raised in that latitude. Calumet, $20 to $25; forest, hilly; soil very fertile. Door, $3; limestone land. Brown, $1.25 to $50; two general qualities—red clay and black muck; the former retentive of manure, but inclined to bake; the latter, when well-drained, very productive for ten years without manure. Fond du Lac, $10 to $50, according to capacity for natural hay, or burden of timber. Washington, $30; all timber, good soil. Ozaukee, $50; timber. Racine, $16; about 30 per cent. timber, 10 per cent. prairie, and 60 per cent. marsh; the latter containing large quantities of peat. Green, $15; prairie, second-rate quality. Lafayette, $10 to $20; the former for barrens, oak openings, or brush lands; much injured by drought, and soil soon exhausted. Crawford, $5; rough and broken, good for grazing, wheat, oats, potatoes, &c. Richland, $3.50; rich, black muck, founded on clay and hard-pan; deep soil, timber land. Vernon, $3; soil very rich. Monroe, $3; bluff land, good soil, well timbered; valley land, sandy soil; oak and pine timber. Jackson, $2 to $10; on the east side of Black River the soil is sand, sand-loam, and ex-

tensive pine, tamarack, and cranberry swamps; on the west side, mostly oak land and openings, and small prairies and valleys. Trempeleau, $7; suited to grazing, wheat and corn. Buffalo, $4. Pierce, prairie and oak openings in good locations, $8; hard wood timber, $4; pine, $10. St. Croix, $7; mostly prairie; three-fourths first quality soil; one-twentieth timber. Clark, $3 to $5; hard wood timber; soil good for all small grains. Marathon, $4 for prairie; $10 to $20 for pine land. Chippewa, light prairie, $3; heavy soil $5 to $8; timber, hard wood, $3; pine, $5; the county about equally divided between prairie and timber. Douglas, $1.25; within limits of land-grant railroads, $2.50; Wisconsin State lands, 75 cents to $1.25. A number of counties report no lands under this head, except those included in farms, and not in the market as wild lands.

TIMBER.—Wisconsin possesses abundant timber resources, and an immense lumbering business is carried on in many of the northern and western counties, the pineries of Marathon, Chippewa, Clark, Wood, St. Croix, and other counties, furnishing many millions of feet of logs and lumber annually. Our Clark correspondent claims that 100,000,000 feet of pine timber is cut each year in that county alone; while in Monroe, 30,000,000 feet is annually cut into lumber by about twenty mills. Hard wood timber also abounds in all parts of the State, and there are few counties without sufficient wood for local uses. The lumbering business is a source of great profit to those engaged in it, and in Brown County, parties boast of cutting enough white pine logs from eighty acres to net $1,200 to $1,500.

MINERALS, &c.—Of minerals, copper is found in Douglas, Chippewa, Richland, Lafayette, Outagamie, and other counties; iron in Chippewa, Jackson, Richland, Fond du Lac, Sauk, &c.; limestone in Richland, Rock, Fond du Lac, Brown; lead and zinc, in Grant, Iowa, and Lafayette; marl and peat, in Walworth, Racine, and several other localities; Marble in Richland, and granite in Fond du Lac. In Douglas there are two veins of copper, as far as known, running through the county, evidently the same description of rock as is found in the upper peninsula of Michigan. There are two mines in operation near Superior. In Outagamie, not much has been done in developing the minerals, but some few specimens of pure copper, weighing from one to five pounds, have been found. Our Lafayette correspondent writes:—

"Our county is rich in minerals. Lead, copper, and zinc abound. The great lead mines of the State are principally within this county, and their development is constant and highly remunerative in most instances. Many individuals engaged in the development of our mineral resources have realized as high as $100,000 in a season."

Peat has been worked to considerable extent in several counties. In Racine efforts have been making the past season to utilize these peat beds for fuel, and with success, as in that locality wood is scarce and correspondingly high. About 500 tons of the former have been manufactured and sold at $5 per ton, wood selling at $7 per cord. There is an abundance of peat in the county.

The agricultural resources of Wisconsin are too well known to require mention here, her rich and generous soil being suited to all the crops of the latitude, and yielding abundantly under the generally indifferent culture to which it has been subject.

CROPS.—Wheat, corn, oats, potatoes, and hay, are the staple crops of Wisconsin, the first-named being the most extensively grown and by far the heaviest money crop, being made a specialty in a large majority of the counties, though it is not grown to the exclusion of other crops in any locality—as in all the Northern States, a variety of crops being cultivated. In La Crosse, Monroe, Richland, Racine, Sauk, and other counties, hops are becoming an important interest, and have thus far proved highly remunerative. The almost universal complaint in reference to the wheat crop is that the yield is gradually decreasing, and as generally attributable to indifferent culture and continuous cropping. Our Walworth correspondent writes:—

"I know of but one marked and general peculiarity in the cultivation of crops in this county, and that is the general effort to cheat the soil into producing the greatest possible amount of crop for the least possible amount of labor. The exceptions to this rule are increasing in number, however, as the necessity becomes more apparent. The average yield per acre for the last decade may be safely set down at 14 bushels of wheat; oats, 35; corn, 35; rye, 20; buckwheat, 10; potatoes, 75 bushels. In 1860, wheat averaged over 30 bushels per acre in this county. The greatest amount of profit during the term named, has been from wheat, and from corn, oats, rye, and buckwheat in the order named. Beans and potatoes have not been cultivated to any great extent as a market crop, though for the last three years the latter crop has paid well, and its cultivation is increasing."

In Fond du Lac, wheat and wool are the chief crops, our correspondent estimating the profit on the former at 50 per cent., and 35 per cent. on the latter; while in Brown, wheat and hay rank first, the latter, in the spring of 1867, bringing $25 to $35 per ton. Our Door reporter says:—

"The most profitable crops are wheat, 25 bushels to the acre; oats, 40 bushels; peas, 40 bushels; potatoes, 130 bushels."

In Calumet, wheat and rape-seed are grown as follows:—

"Winter wheat, 25 bushels per acre; spring wheat, 18 bushels acre; rape-seed, 17 bushels per acre; the cost of sowing and

harvesting the wheat being about the value of five bushels, and of the rape-seed, four bushels."

In Outagamie "the largest yield of winter wheat on new ground is from 45 to 50 bushels—average, 35 to 40; on old ground, 30 to 35 bushels; spring wheat, when well cultivated, 35 bushels; expenses of crop do not exceed $9 per acre, including seed."

In Sauk, "hops are made a specialty, growing luxuriantly and yielding most abundantly, averaging three-fourths of a ton per acre, and selling at from 50 to 60 cents per pound. This county alone, last season, received for the article of hops about $3,000,000—cost of raising, about 22 cents per pound." Our Monroe correspondent estimates the profits upon this crop to be 350 per cent. on outlay of capital and labor. In Richland the profit is given at 150 per cent. Sauk is at present the great hop county, but the vines are being largely cultivated in other localities, and the great success which has attended experiments thus far must stimulate still greater attention to the crop, to which the region seems especially adapted.

The wheat crop of 1866 reached 20,307,920 bushels, or an average of 14½ bushels per acre; corn, 9,414,583 bushels, average per acre, 28.3; oats, 17,174,086 bushels, average 33.3; potatoes, 3,940,273 bushels, average, 91 bushels; hay, 1,151,477 tons, average, 1.3 ton per acre.

Comparatively little winter wheat has been grown in Wisconsin, but its success has been so repeatedly demonstrated in various parts of the State that the quantity raised is rapidly increasing.

From Marathon our correspondent writes:—

"The only reason why farmers do not raise more winter wheat is because they do not know how well our soil and climate are adapted to it."

The usual time for sowing spring wheat is from the last week in March to the middle or latter part of April; and for winter, the first of September. Harvesting commences the first or second week in July with winter wheat, and extends to the middle of August with the spring grain. The general mode of culture for spring wheat is to plow in the fall, and early in the spring use the cultivator, then sow the wheat and harrow until the wheat is covered. A few farmers roll their wheat soon after sowing, but the custom is dying out as the land becomes older. Our correspondent says that the first, second, and sometimes the third crops on new ground are generally spring wheat; afterward, each alternate year following, oats or corn.

MICHIGAN.

The State of Michigan consists of two disconnected peninsulas, between which are the upper ends of Lakes Michigan and Huron. It extends from the States of Ohio and Indiana on the south, to Lake Superior on the north, which divides it from the British Possessions. The northern division, lying between Lakes Superior and Michigan, is 316 miles long, and from 36 to 120 wide, comprising about one-third of the area of the State. The southern peninsula, included between Lakes Michigan, Huron, and Erie, is 416 miles long, and from 50 to 300 wide. The State has a lake shore line of 1,400 miles, and an area of 36,128,640 acres, of which more than 5,000,000 acres are yet unsold, and in the hands of the General Government.

The population of the State is not far from 1,000,000.

The surface of the *northern peninsula* is rugged and picturesque, diversified with mountains, valleys, and undulating plains. The Porcupine Mountains form the dividing ridge between Lakes Superior and Michigan, and are upward of 2,000 feet high. "The greater portion of the peninsula, the sand plains excepted, is covered with immense forests, principally of white and yellow pine, a portion of spruce, hemlock, birch, oak, and aspen, with a mixture of maple, ash, and elm, especially upon the rivers. Of the pine lands, there are millions of acres stretching between the Sault Ste. Marie, the Ontonagon, and Montreal rivers. To convert this material into lumber, there are discharging into the lakes forty large and sixty smaller streams, which will furnish a hydraulic power sufficient for all purposes. These streams, the largest of which does not exceed 150 miles, irrigate the country abundantly, and by their facilities for navigation furnish easy access to the interior. The head branches of the opposite

lake streams often interlock, and when they do not communicate, furnish an easy portage from one to the other, by which navigation between the lakes is easily effected with the lighter craft. The lake coast of this section of the State has been estimated at between 700 and 800 miles in length, and that five-sevenths of the entire peninsula may be reached by the common lake vessels. This peninsula (the northern part of which has sometimes been called the *Siberia* of Michigan), it is probable, will never be noted for its agricultural productions, or immediately for the density of its population. With the exception of the fertile intervals on the rivers, the soil of the northern portion has all the evidences of sterility, as is exhibited in its mountains and barren sand plains. The southern part is more congenial in climate and soil. This is the limestone region, which extends to an undetermined line, separating the primary and secondary formations. Throughout this region the sugar-maple tree is abundant, interspersed with the white and red oak, the beech, and occasionally tracts of spruce and other forest-trees. It is here that the more even and fertile tracts of land are found, and where, at some future day, will cluster the agricultural population of the peninsula. The soil is admirably fitted for grasses and all esculent roots; the potato also finds here a congenial locality, and the ordinary garden vegetables grow luxuriantly. Wheat and other small grains may be cultivated, but for corn the country and climate appears to be uncongenial. The lake fisheries, on both sides of the peninsula, are destined to be of no mean importance to the welfare of the settlers. In variety numerous, and in the greatest abundance, the fisheries in these waters have long attracted the attention of those counting the resources of the section. The Indians formerly derived a considerable portion of their subsistence from this source, and from the first settlements of the French to the present day their value has always been asserted. But this peninsula is also a great mineral region—not only of the State, but of the Union, and on that interest will its future prosperity mainly depend. Iron and copper are found in all the western and

northern parts, from the Pictured Rocks and the Keweenaw Point to the Montreal River, the iron being chiefly a magnetic ore, equal in purity and quality to that of Missouri, and the copper, often in native bowlders, more plentiful than elsewhere occurring."

The *southern peninsula* presents, in most respects, a striking contrast to the northern. Its surface is generally level or rolling, and its soil is characterized by extreme fertility. Along the shore of Lake Huron is a strip or belt of territory, extending inland from ten to twenty miles, which may be called flat. This plain gradually becomes undulating, until it culminates in a low dividing ridge, or water-shed, which passes through the eastern portion of the peninsula from north to south, whence there is a gradual and unbroken slope toward Lake Michigan, furnishing excellent drainage. "To the traveler the country presents an appearance eminently picturesque and delightful. Through a considerable portion the surface is so even and free from brush as to admit of carriages being driven through it with the same facility as over the prairie or common road. The lowering forest and grove, the luxuriant prairie, the crystal lake and limpid rivulet, are so frequently and happily blended together, especially in the southern section of the peninsula, as to confer additional charms upon the high finishing of a landscape, the beauty of which is not excelled by that of any other part of the Union."

"Not only is this State surrounded by lakes, but the interior is interspersed with them from one border to the other. The country indeed is literally maculated with small lakes of every form and size, from an area of 1 to 1,000 acres, though, as a general rule, they do not perhaps average 500 acres in extent. They are sometimes so frequent that several of them may be seen from the same position. They are usually very deep, with gravelly bottoms, waters transparent, and of a cool temperature at all seasons. This latter fact is supposed to be in consequence of springs which furnish them constant supplies. Water-fowl of various sorts inhabit their shores, and their depths are the domain of abundance of fish, such as trout, bass,

pike, pickerel, dace, perch, cat-fish, sucker, bull-head, &c., which often grow to an extraordinary size. It is usual to find some creek or rivulet originating in these; but what is a singular fact, and not easily accounted for, many of these bodies of living water have no perceptible outlet, and yet are stored with fish. A lake of this description, with its rich stores of fish and game, forms no unenviable appendage to a farm, and is properly appreciated. But, with all its length of lake coast, Michigan can boast of but few good harbors, yet there are several that afford excellent shelter from the storms that frequently sweep over these great inland seas, and lash them into turmoil."

The copper and iron mines of the northern peninsula of Michigan are known throughout the world. The existence of native copper in this region was noticed more than two hundred years ago, and referred to in books published at this period. In the year 1771, an English trader, named Alexander Henry, spent considerable money in the effort to obtain copper near the forks of the Ontonagon River; but it was not until about the year 1844—after the Lake Superior mineral regions were ceded by the Indians to the United States, and surveys and geological explorations had thoroughly demonstrated the existence of this mineral in large quantities—that private enterprise was stimulated to such efforts as resulted in the profitable working of the Lake Superior copper mines.

The region containing copper was limited to a range of hills, about two miles wide, and from 500 to 1,000 feet high, commencing at the coast on Keweenaw Point, running down the promontory in a southwesterly direction, and extending at least forty miles to the westward of the Ontonagon River. These hills are formed of strata of trap, alternating with sandstone and conglomerate rock, which dip and disappear to the north, to again become visible upon Isle Royale, forty-five miles distant in a northwesterly direction. There are other similar formations in the peninsula which are known to contain copper, but all the mines at present profitably worked are within the area above indicated.

Throughout this region the copper is only found in a metallic state, copper ore being found so rarely as to be considered as a cabinet specimen. Lumps of all sizes and shapes are found in the veins mingled with quartz. These masses are never alloyed, but are frequently associated with native silver. The writer has in his possession a specimen weighing three pounds, nearly one-half of which is pure silver. During the summer of 1858, a mass of native copper was exposed, 48 feet in length, 20 in thickness, and weighing more than 150 tons. The management of these immense masses is very difficult. They must be reduced to lumps of five or six tons before they can be hoisted up the shafts; and as they can not be separated with powder, they are cut with long steel chisels, upon which two workmen strike alternately, while the chisel is held by a third. Sometimes a month is required to complete a single cut.

The Lake Superior mines yielded from the commencement of mining in 1844–45, to January 1, 1858, a total of 24,525 tons, which, reduced to ingot copper at 67 per cent., is 16,432 tons, valued at $8,216,000. The copper interests are in a very depressed state at present, owing to the low price of copper, and various other causes.

Iron mining has assumed immense importance in northern Michigan. The principal deposits are found in Marquette County, from twelve to fifty miles back from Lake Superior. The ore is obtained by open quarrying, and is very pure, much of it yielding 68 per cent. of iron, without a trace of sulphur, phosphorus, or manganese. The ore forms ridges raising to the height of forty or fifty feet, sometimes 1,000 or more feet wide, and extending for miles. At one point is a mountain or hill 180 feet in height, consisting entirely of alternate bands of pure, fine-grained, steel-gray peroxide of iron, and deep red jasper ore. The layers are generally less than one-fourth of an inch thick, and curiously contorted. This deposit is estimated to be 1,000 feet wide and more than a mile long. A railroad runs through this district connecting Marquette on Lake Superior with Esconaba on the waters of Lake Michigan.

This region offers many inducements to the summer tourist, and is annually visited by health and pleasure-seekers, who return invigorated with the pure air and charmed with the grand and picturesque scenery around Lake Superior. The Commissioner of the General Land Office says:—

The shores of Lake Superior abound in striking and romantic views, the "pictured rocks" being objects of special interest. They are composed of party-colored sandstones worn by the attrition of the waves into fancied resemblances of ruined temples and castles. They are sixty miles from the Sault Ste. Marie.

Soil.—The soil in the middle and south of the lower peninsula is very rich, generally free from stones, of a deep, dark, rich, sandy loam, often mingled with gravel and clay. The northern part is well timbered, arable, and fertile.

The agricultural character of the northern peninsula has not been determined. Portions of it are densely timbered, furnishing immense quantities of lumber, for domestic use and for exportation, the trees being the white pine, spruce, hemlock, birch, and oak. In the lower peninsula are heavily timbered tracts of black and white walnut, sugar-maple, oak, hickory, ash, basswood, locust, and poplar.

Climate and Productions.—The climate of Michigan is less severe than that of other portions of the country between the same parallels of latitude, being softened by the immense fresh-water surface on the borders of the State.

The colder and less genial climate of the northern peninsula, though admitting good crops of winter grain, is not favorable to maize. The lower portion of the State, however, produces large aggregates of all kinds of cereals.

The agricultural yield of the State is immense in wheat, rye, maize, oats, barley, buckwheat, potatoes, beans, and hay, also the products of the orchard (apples, peaches, pears, and plums), and of the dairy. The yield of maple-sugar, sorghum-molasses, and honey, is abundant and increasing.

Tobacco is cultivated to some extent, and large quantities are imported for manufacture.

Wool raising is an important branch of husbandry. The clip of 1866 was estimated at 9,750,000 pounds, an increase of 2,500,000 pounds over the clip of 1864, notwithstanding an immense exportation of sheep to Iowa.

The lumber trade of Michigan is of great value and extent; the extensive pineries, after satisfying the home demand, supply a large surplus for exportation. The quantity cut in 1866 was largely in excess of the product of the previous year—at least 30 per cent.; the total amounted to 1,125,000,000 feet.

MINERALS.—The upper peninsula, rich in minerals, prominent among which is copper, is mostly of primitive geological character; the lower exclusively secondary. The copper deposits among the primary rocks of the northern peninsula are the richest in the world, the copper belt being one hundred and twenty miles long and from two to six miles wide. A block of several tons of almost pure copper, taken from the mouth of Ontonagon River, has been built into the wall of the Washington monument at the national capital. A mass weighing one hundred and fifty tons was uncovered in 1854 in the North American mine.

Isle Royale abounds in this mineral; one house in that district, during five and a half months of 1854, shipped over two millions of pounds, and in the nine years previous there were produced four thousand eight hundred and twenty-four tons. The yield of copper in the State has risen to an annual average of eight thousand tons, with promise of steady increase. The opening of the St. Mary's Canal and the clearing of the entrance into Portage Lake have given fresh impetus to this branch of mining industry, which is becoming one of the most cherished interests of the State. Silver has been found in connection with the copper in the proportion of from twenty-five to fifty per cent. of the precious metal. Iron of superior quality has been discovered in a bed of slate from six to twenty-five miles wide, and one hundred and fifty long, extending into Wisconsin. In the production of this mineral in 1863, Michigan was only second to Pennsylvania, having produced two hundred and seventy-three thousand tons of ore. Bituminous coal is mined on an enlarging scale to meet the demand of manufactures. Salt also exists in quantities repaying the investment of capital.

The high prices lately prevailing have caused a rapid development of the salt fields around Saginaw, a basin some forty or fifty miles square, in which by boring some eight hundred feet, an inexhaustible supply of brine is obtained, yielding eighty or ninety per cent. of salt.

MANUFACTURES.—The manufacturing interests in the year 1860 were represented by three thousand four hundred and forty-eight establishments, with a capital of $23,808,226. The cost of labor and the raw material amounted to $24,370,658, the total value of the products having been $32,658,356, giving a surplus over cost of labor and materials of $8,287,698, or nearly 35 per cent. on the capital invested. These establishments were mostly engaged in the working of the heavy products of the mines and the forest into forms for the more elaborate processes in the older States. Yet the increase of labor and capital is such that the intelligent industries of the people are finding occupation in the higher branches of manufactures.

MISCELLANEOUS.—The lakes around the State abound in fish,

consisting of white fish, pickerel, siskiwit, trout, bass, herring, and muskallonge. They ield of 1865, was 35,200 barrels, averaging sixteen dollars each, amounting to $563,200, the legislature having forbidden seine-fishing in order to prevent injury to this branch of industry.

Upward of eight hundred miles of railroad have been completed at a cost of about thirty-five millions of dollars, and six hundred more are in course of construction or projected, the completion of which will add largely to the prosperity of all the industrial interests of the State.

Lansing, the capital, on Grand River, one hundred and ten miles northwest from Detroit, was, when selected as the seat of government in 1847, an unbroken wilderness. It is now a city of nearly five thousand inhabitants, containing churches, banks, newspaper establishments, and institutions of learning, male and female.

Detroit, settled by the French in 1670, situated on the strait connecting Lakes Erie and St. Clair, is a splendid city, with a population in 1865 of sixty thousand, now rapidly increasing. It is well built, gas lit, and provided with ample street railways, possesses a very efficient system of public schools, accommodated in neat and commodious edifices, while its churches embrace several specimens of elaborate and tasteful architecture.

Its position is admirable for commerce, of which it has a considerable share, having lines of trade with Liverpool. Monroe, Saginaw, Port Huron, Ste. Marie, and New Buffalo, are also important places.

The finances of the State are in a healthy condition, the debt small and in rapid liquidation. Educational endowments are liberal and well administered.

The resources of the State when fully developed will doubtless be sufficient to support comfortably a population of ten millions.

The Report of the Department of Agriculture for the month of April, 1868, contains the following:—

Relative Value of Wild Lands as compared with 1860.—Of the counties making returns to our circular, but one, Ontonagon, reports a decline in the value of farm lands, depreciation in this case being attributed to the great depression of the copper mining interest. Bay County claims an increase of 300 per cent; Iosco, Alpena, and Gratiot from 200 to 250; Delta, Leelenaw, Cass, Clinton, and Jackson, 100; Kent, 66; Lapeer, Ingham, Barry, Branch, Ottawa, and Muskegon, 50; Berrien, Van Buren, Macomb, St. Joseph, 30 to 40; Alcona, Livingston, Hillsdale, and Kalamazoo, 15 to 25 per cent.; showing an average increase of about 70 per cent. for the State since the estimates of 1860. Mason County has been mostly settled under the homestead laws since 1862, and farm lands have increased from $1.25 to $10 per acre.

PRESENT PRICE OF UNIMPROVED LAND.—Wild or unimproved lands are reported at various figures from the Government minimum price up to $50 per acre, according to location and condition. In Ontonagon, in the northwest, on Lake Superior, the average value is $6 per acre, heavily timbered with hemlock, maple, birch, and pine, suited to wheat culture, fruits, and vegetables. Delta County, $1.25 to $2.50; about one-tenth in hard wood, good soil; the remainder pine, sandy, and poor. Leelenaw, Government lands, $1.25; held by individuals, $5 per acre; soil a sandy loam. Mason, Government land, $1.25 to $2.50; State swamp, $1.25; railroad, about $2.50; the swamp is in cedar, ash, and hemlock timber; when cleared makes good grass land; one-half the county in pine now being cut off, soil poor, light. Muskegon, $8 per acre; soil partly clay loam, remainder sandy. Ottawa, $8.50 on an average, though some fruit lands are selling as high as $50 to $75 per acre. Kent, average value, $15; soil various, some superior wheat land. Van Buren, $16 per acre. Cass, $25, if dry enough for cultivation without draining; wet lands not worth so much; dry lands generally timbered heavily; will produce grass, wheat, corn, potatoes, &c., in perfection, also fruits suited to the latitude. Branch, $10 to $40 per acre, mostly timber. Hillsdale, $10 per acre, generally broken by hills and swamps. Jackson, but small parcels left, worth $25 to $30 per acre. Calhoun, $15 per acre; three-fourths good farming lands when cleared; one-fourth swamp, mostly without timber. Kalamazoo, mostly oak openings and beach and maple lands; soil fertile, desirable for wheat and grass. Barry, $10 per acre. Clinton, unimproved farming lands are worth $9 per acre; quality excellent, gently rolling, half timber and half oak openings; soil varying from light sand to heavy clay; swamp lands of little market value, though they contain inexhaustible stores of peat and marl. Ingham, greater part of the wild land is wet, mostly black muck, highly productive when drained; there are also dry farming tracts, well timbered. Gratiot, $6 per acre, chiefly farm land, very fertile, producing large crops of grain and grass. Macomb, $25 per acre, various qualities, nearly all susceptible of high cultivation. Lapeer, $5 to $20; in the south, oak openings, northern portion, heavily timbered; nearly all good farm land. Mackinaw, $1.25 per acre; little farming done in the county. Bay, $7 per acre, well timbered. Iosco, $4 to $15 per acre. Alcona, $1.25 per acre, though holders of pine land reserve it at that price. Alpena, a large portion of the farming lands belong to the Government, and can be purchased at $1.25 per acre, while land in second hands commands from $3 to $20, according to quality and location. In several counties all the unimproved and timber lands belong to farms, and are not in the market separately.

MINERALS, &c.—The mineral resources of Michigan are chiefly

confined to the northern peninsula, the copper and iron regions of which are too widely known to need detailed description here. The great copper deposits are principally located in the Keweenaw peninsula, but the beds extend along the lake from Ontonagon to Schoolcraft in greater or less quantities. The extreme length of the copper beds is said to be 135 miles, with a width varying from one to six miles, though the mineral does not exist in every portion of this extent, miles sometimes intervening with no traces of the ore. The rich deposits of iron ore are found chiefly in Marquette County, where there are literally mountains of this metal. Iron ore is also found in Delta, and to some extent in Berrien and Branch counties. Coal abounds in Jackson, and is found in limited quantity in Ingham, Bay, and other counties, but as yet has been but slightly developed. Gypsum is reported in Van Wert, Iosco, &c.; salt wells in Ingham and Van Wert; clay and lime in Jackson, Alpena, &c. Marl is also abundant in some localities. There is an abundance of timber in great variety in all sections of the State, and in several counties lumbering is an extensive business. In Gratiot County large forces of men are employed every winter in lumbering off the pine, and during the past year 8,000 to 10,000 acres have been cleared up and put in crops or in readiness for seeding in the spring. Large forests of sugar-maple exist in this county, and many thousands of pounds of maple-sugar are made annually. Our Alcona correspondent says that county "is almost a solid body of pine timber, interspersed with small tracts of farming lands of the best quality, covered with a heavy growth of birch and sugar-maple."

CROPS.—Wheat, corn, oats, hay, potatoes, hops, &c., are grown generally throughout the State, no county or section being entirely devoted to any particular crop, though wheat is the leading product in many counties, potatoes and hay in others, while corn, hops, pork, and wool are the money crops in some sections. Wheat and corn are largely grown in Muskegon, Berrien, Kalamazoo, Cass, Barry, Hillsdale, St. Joseph, Livingston, Van Buren, Calhoun, Kent, Gratiot, Macomb, Lapeer, Ingham, Clinton, and other counties; potatoes have been a leading crop in Mason, St. Joseph, Mackinaw, Ontonagon, Delta, Alcona, Alpena, Iosco; hay in Bay, Ontonagon, Delta, Alcona, &c.; hops in Calhoun, Van Buren, Macomb; wool in Livingston, Kent, and Clinton. Our Calhoun reporter writes:

"In 1863 this county produced about 860,000 bushels of wheat, averaging nearly 15 bushels per acre, worth in round numbers $1,500,000. D. F. Curtis, living near this city (Marshall), harvested 40 acres of Treadwell wheat this year, which yielded 30 bushels to the acre, sold in September at $2 per bushel. It was sown on a clover sod, plowed early with a three-horse team, thoroughly dragged and cultivated, drilled in. (This is more

than double the average of our county.) Another gentleman has several acres in hops; his crop last year was about 1,100 pounds per acre, which sold at 60 cents per pound, yielding a net profit of $300, in addition to the roots sold in the spring, which, at $3 per bushel, produced nearly half as much more. The prices of both the hops and roots were high, rather speculative."

In Clinton, last season, our reporter says he harvested 168 bushels of wheat on seven acres of clover sod, from which the stumps had not been removed, and that a neighbor raised 500 bushels upon 18 acres; and adds that those who take pains get from 18 to 30 bushels per acre. Ingham averages 12 to 15 bushels of wheat to the acre, netting about $10 per acre. In Gratiot, winter wheat on well-worked summer fallow, not molested by the midge, yields 30 to 40 bushels to the acre; spring wheat does as well in favorable seasons. In Hillsdale, wheat has become a precarious crop, from bad farming, and more attention is given to corn, which seldom fails, and is considered more profitable when fed out on the farm. Farmers in the lumbering regions and counties adjacent find the production of potatoes, hay, and oats the most profitable, always having a ready market for their surplus, and the crops being pretty reliable. In Iosco, our reporter says, they grow 300 bushels of potatoes to the acre, and make a profit of $225 per acre. Our Alpena correspondent says:—

"Hay is worth $30 per ton; oats, $1 per bushel; potatoes, $1.50 per bushel. This county purchased and brought here last year, at a cost of $4 per ton, not less than 600 tons of hay, 15,000 bushels of oats, and 5,000 to 6,000 bushels of potatoes. The price paid for clearing lands is $20 to $25 per acre, which land will yield from one to two and a half tons of hay to the acre, from 20 to 50 bushels of oats, and from 100 to 200 bushels of potatoes, with good market at cash prices. Last season I had 15 acres of grass, and was offered $20 per acre for it as it stood, and I think this amount can be netted from any fair acre of farming land in this county."

From St. Joseph County we have: "Potatoes and peppermint oil are specialties in this county. Of the former not less than 200,000 bushels were shipped from the county last season, at an average of 65 cents per bushel to the producer, and of the latter about 7,000 pounds, at $4.75 per pound. Those engaged in the culture of these crops are well satisfied with the profits, potatoes being well calculated to subdue the land and leave it in good condition for laying down to grass, while peppermint leaves the land (after yielding three crops to one planting) in fine condition for wheat, our staple crop."

Hop culture is proving largely remunerative wherever engaged in, and the business is annually increasing in the State. Wool

has been a prominent production in some sections, but the low prices of the past season have discouraged many farmers, and less attention is being paid to this branch, the returns of the number of sheep in the State, January 1, 1868, showing a decline of 80,000 from the year preceding.

Unlike other States lying in the same latitude, Michigan raises winter wheat principally, the peculiar location of the State, almost entirely surrounded by water, having much to do with the general exemption of winter grains from the freezing-out to which the crop in other Northern States is so frequently subjected.

The sowing season extends from the 1st to the 30th of September, though the greater portion is put in from the 5th to the 20th, and harvesting is generally done from the 5th to the 20th of July, though it is sometimes commenced in some counties as early as the 1st of the month, and in others extends into August. Not more than 20 per cent. of the acreage of the State is drilled, and in some counties drilling has not been introduced. In Van Buren, Lapeer, Macomb, St. Joseph, Barry, Livingston, Cass, Jackson, Calhoun, Oakland, Kalamazoo, and a few other counties, the proportion sown broadcast is about one-half on an average. Livingston reports nine-tenths drilled and Cass three-fourths. Summer fallowing for wheat appears to be general. In Branch County, our reporter says, they usually summer-fallow, plow twice, and drag sufficiently to make the ground mellow. In Calhoun "three-fourths of the crop is grown on fallow, of which two-thirds is sown on clover sod, plowed once; after cultivation with harrow and cultivator or gang-plow, the rest of the fallow being plowed twice; one-fourth of the whole crop comes after corn or other spring crop, a moiety being sown in corn without cutting up. This corn is planted five feet apart in squares, cultivated thoroughly and put in with horse cultivator, the corn being husked off the hills about the 1st of September, and the cattle allowed to winter in the field when covered with snow."

Our St. Joseph reporter says that the mode of culture varies among the best farmers, but they generally plow clover sod in June; some then let it lie without plowing again, but till thoroughly with cultivator and harrow, while others plow again in August. Our Berrien correspondent writes:—

"The manner of cultivation varies according to means and circumstances. My method is to plow twice, from nine to eleven inches deep, with three or four heavy horses, harrow thoroughly, sow from one and one-fourth to two bushels, according to size of grain, cultivate with a nine-tooth cultivator, cross-harrow with a light harrow, then roll with a heavy roller. With this treatment I usually raise heavy crops."

The length of season during which farm stock can feed exclusively upon pastures is reported from four to seven months.

ILLINOIS.

THE great State of Illinois, second only in agricultural importance to New York State, presents a brilliant illustration of the wonderful progress and development of the prairie regions which occupy that division of our country lying west of the great lakes. In some respects Illinois possesses advantages promotive of rapid growth and prosperity enjoyed by no other Western State. A glance at the map will confirm this assertion. Her northeastern borders are washed by the waves of Lake Michigan, affording a water outlet to the Atlantic; her entire western and southwestern borders rest on the Mississippi River for more than five hundred miles, while the southern and parts of the eastern boundary are flanked by the Ohio and Wabash rivers—affording a river and lake communication with the sea unequaled by any other State of the Union. In round numbers, it may be stated that the internal and border river navigation of Illinois has an extent of over 1,200 miles.

Such superior facilities for floating to market the bountiful productions of a region of almost universal fertility, furnish easy explanation for the rapid growth and enduring prosperity which have combined to make Illinois a leading State of the Union.

Illinois occupies a geographical position peculiarly favorable to the cultivation of a great variety of agricultural products. The latitudinal extremes of the State are 37½° and 42°, involving climatic differences rarely found in other States. The northern portions are well adapted to the cereals, producing bountiful yields of wheat, oats, corn, and esculent roots; the central favors a more prolific growth of the same

varieties; while the southern portion, with its softened temperature, not only nourishes all these, but in some sections is well adapted to the cultivation of tobacco, cotton, and a variety of delicate fruits, which in higher latitudes are subject to earlier frosts and shorter growing seasons. The castor bean has been successfully cultivated in the southern counties, and sweet potatoes are a reliable crop. Tobacco is extensively grown, the crop of last year selling for $1,260,000, and cotton also constitutes an important product of the State.

Not alone in agricultural resources is Illinois specially favored. The northern part abounds in mineral products of great commercial value, and scattered through almost the entire State are inexhaustible deposits of coal, comprising a field six times as large as all the coal fields of Great Britain. The lead district of Illinois covers an extent of over 160,000 acres. The annual product of this mineral from the district mentioned is very great, but as the records of shipments from Galena include the yield from the mines of southwestern Wisconsin, no special figures for Illinois can be given. Iron is also found in considerable quantities in the southern portions of the State.

The timber supply of Illinois is greater than that of any other prairie State, but is not equally distributed. Some counties possess a superabundance, while others are almost destitute even of the limited requirements for fuel. The most abundant varieties of timber are the oaks, ash, hickory, elm, maple, locust, cottonwood, walnut, and linden. In some of the rich river bottoms the cottonwood and sycamore attain an enormous size.

While this State, in common with Indiana and Ohio, does not offer the young and vigorous emigrant farmer, whose principal possessions are his strong arms and willingness to work, equal advantages with newer and less thickly settled regions in respect to cheap lands and growing opportunities, the chances are by no means all taken. Patient industry is sure to be rewarded by success and independence, and there are always openings in the enterprising towns and cities of

these States for the skilled artisan, the merchant, or the professional man, to which the cities of the old world can offer no comparison. The foreign population of Illinois already numbers several hundred thousands, who find on its broad prairies and extensive bottoms a more genial climate, a prolific soil, and more numerous opportunities for successful industry, than were afforded in their native lands; and better still, they here enjoy rights and privileges as citizens which are unattainable in the old world.

The rivers which rise within the limits of the State are Rock, Illinois, Kaskaskia, and Big Muddy, affluents of the Mississippi; the Embarras and Little Wabash, tributaries of the Wabash; and the Saline and Cash rivers, which empty into the Ohio. The *Illinois* is much the largest of these; it is formed by the union of the Kankakee and Des Plaines, and in its course of 500 miles toward the Mississippi receives Fox and Spoon rivers, Crooked Creek, and several other streams from the north, and the Vermilion, Mackinaw, Sangamon, and others from the south. The current of the Illinois is in general gentle, with a wide, deep bed—in some places opening into broad and lake-like expanses. *Rock River* rises in Wisconsin, and has a course of 300 miles; it is navigable for some distance, but in its upper course is impeded by several rapids. The *Kaskaskia* rises in the eastern part of the State, and pursues a direction nearly parallel to that of the Illinois and Rock rivers, and after a course of 300 miles reaches the Mississippi in latitude 38° north. The *Big Muddy* is also a considerable stream. The rivers flowing to the Ohio and Wabash are generally of less volume than the smaller class of rivers flowing toward the Mississippi, but several are navigable, and all contribute much to the wealth of the country by the abundance of water-power they supply for mechanical purposes.

"The soils of Illinois, though of such various character, are all highly fertile and productive. In the bottoms, or alluvial borders of the rivers, the soil is chiefly formed from the deposits of the waters during flood. In some cases the mold so

formed is twenty-five feet and upward in depth, and of inexhaustible fertility. A tract called the "American Bottom," extending along the Mississippi for ninety miles, and about five miles in average width, is of this formation. About the French towns it has been cultivated, and produced Indian corn every year, without manuring, for a century and a half. The prairie lands, although not so productive, are yet not inferior for many agricultural purposes, and are preferred, where wood is to be had, on account of their superior salubrity. The barrens, or oak openings, have frequently a thin soil."

From the Monthly Report of the Department of Agriculture for June, 1868, we copy the following:—

Price of Unimproved Lands.—The average increase in the value of farm lands in the several counties of Illinois, as compared with the estimates under the census of 1860, is various, ranging from as low as six per cent., up to one hundred per cent. Of wild or unimproved lands a number of counties report "little or none," except such as may be connected with cultivated farms, and not to be purchased separately. The prices for this description of lands vary greatly according to quality and location, ranging from $2 upward to the full value of improved lands. In Stephenson County these lands are held at from $10 to $15 per acre, much of them broken and hilly, with small second growth timber, adapted to grazing. Winnebago, very little unimproved prairie land in the county; it is held at $30 per acre; unimproved timber land, with timber cut off, is worth $6 to $15; part of the latter has a rich, productive soil. McHenry and Lake have very little of such lands disconnected from cultivated farms. Kane, no wild lands except swamps owned by the county, held at $4 to $10 per acre. Cook, $35 per acre, mostly low bottom land, too wet for cultivation, yet capable of producing good pasturage and meadow. Will County, $20 per acre, quantity small. Grundy, $16, deep loam, with clay subsoil, capable of producing heavy crops of corn, grass, small grains, fruits, &c. Lee, $4 to $12; a portion will produce 30 bushels of corn, the balance fit for pasture. Bureau, average $15 per acre, mostly good prairie. Putnam, chiefly Illinois River bottom and bluff lands, the former rich and well adapted to the culture of corn and potatoes, the latter suited to fruit culture. Henry, average $18.50, quality about No. 2. Rock Island, $2 to $12 per acre, mostly low bottom lands. Mercer, $8 per acre; three-fourths broken or sharply rolling, bordering the streams,

and generally covered with young timber; excellent for wheat and other small grains, and good for corn and grass; one-fourth is overflowed and not cultivable without leveeing, but furnishes subsistence to large herds of cattle. In Henderson nearly all cultivable land is now worked, and the timber land is being fenced for pasture. McDonough, a large amount of the best lands held by speculators, worth $25 per acre; secondary tracts and creek bluffs, from $3 to $20 per acre. Fulton, $5 to $10 per acre, mostly "barrens." Warren, $15 per acre, prairie and timber; the soil of the former a deep rich loam, 12 to 18 inches deep; the latter not generally good, the timber constituting the chief value, hilly and uneven. Brown, $7.50 per acre; some No. 1 soil, remainder very thin; timber, coal, and potters' clay, upon some portions. Knox, $10 to $25 per acre, chiefly brush lands, generally underlaid with coal; these lands mostly good for fruits, especially grapes. Stark, $20 per acre, rich soil. Woodford, raw prairie, $14 per acre; timber, when suitable for lumber, $100 to $200 per acre; barrens (clay land from which the timber has been cleared), $10 per acre. Livingston, $15 per acre, suited for all farming purposes. Iroquois, $7 per acre, quality inferior to good, light sand, black sandy loam, black clay loam, and muck; good for grazing and general farming. Ford, $12 per acre, rich prairie. DeWitt, $8 to $25, chiefly belonging to Central Railroad Company, mostly low and flat, but equal to the best uplands when properly drained. Douglass, $15 per acre, mostly rich prairie. Edgar, $12 per acre, first-class land. Moultrie, $12.50, embracing about one-third of the county, held by speculators and the Central Railroad Company; quality excellent, claimed to be capable of producing corn, wheat, and hay for many years, without manure. Christian, $10; one-third hard timber, remainder fair prairie. Macon, $8 to $15, generally held by speculators and Central Railroad Company; quality good, capable of high cultivation. Logan, $22.50, chiefly prairie of good quality. Sangamon, $24; mostly along watercourses, and belonging to farms; held for timber growing, and, where fenced, used as woods pastures. Adams, $5; timber land minus the timber. Macoupin, $10; good wheat and corn land. Jersey, $3 to $50, average about $12 per acre, mostly broken or kept for timber. Fayette, $10 per acre; good land. Effingham, prairie $15, timber $10 per acre; one-third of the county timber; soil, clay loam, adapted to grain, grass and fruit. Cumberland, prairie land $11, good timber $12, glade or brush $4 to $5 per acre. Crawford, $10 per acre, timber and prairie; adapted to grain, grass, tobacco, &c. Richland, $15 to $20 per acre for wild land free from timber, and $4 to $8 for timbered prairie land; the latter being lower, owing to the labor and time required to bring it under cultivation, the timber being thick but of poor quality. Wabash, $20 per acre; good for grass and for corn when

drained. Marion, $18; prairie and timber, adapted to culture of grain and fruits, especially grapes. Clinton, $10 to $36; the upland is first-rate for wheat, and the bottoms for corn; the prairie adapted to general farming. Washington, $20 per acre, mostly timber or broken; quality inferior. Randolph, average $15 per acre; a portion very rich, covered with hickory and oak. Franklin, $5 per acre, principally timber; one-sixth bottom lands, the remainder average tillable land, some of the best quality. Union, $15 per acre. Alexander, $9 per acre; black sandy soil, broken and bottom lands, good for grain and grass. Pulaski, $10 per acre. Massac, $3 per acre; swampy, but the driest portions are fine for grass. Pope, $3.50; mostly broken or hilly, with any amount of sandstone on the surface. Hardin, $5 per acre; good ridge lands, suited to grain and potatoes. Williamson, $9 per acre; quality tolerably good for general farming. In 1860 the improved land numbered 13,096,374 acres against upward of 22,000,000 acres (including water surfaces) unimproved, but at this date the proportions are greatly changed.

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The agricultural resources of Illinois constitute her chief source of wealth and material prosperity, the State now ranking, next to New York, the highest in the aggregate value of agricultural products, reaching over $160,000,000 in 1866, and $184,000,000 in 1867. The character of the soil of the State is too well known to require detailed mention here.

Wheat, Indian corn, oats, hay, and potatoes, are the leading crops of the State, being extensively grown in all sections, but the first two named are the great staples, the crop of Indian corn of 1866 aggregating nearly 156,000,000 bushels, or more than one-sixth of the entire crop of the country; and of wheat about 28,500,000 bushels, and about the same proportion of the total yield. As in all the Northern States, a mixed husbandry prevails throughout the State, the full list of products suited to the latitude being grown to a greater or less extent in each county. The money values of the several prominent crops during the past year, foot up, in round numbers, as follows: Indian corn, $74,000,000; wheat, $60,000,000; hay, $25,000,000; oats, $15,000,000; potatoes, $4,400,000; tobacco, $1,260,000; barley, $1,270,000; rye, $760,000; buckwheat, $273,000. The wheat is the chief money crop, however, a large portion of the corn, and grass crops being fed out upon the farm to cattle and hogs.

The General Land Office Report for 1867, furnishes the following interesting statistics:—

In 1850, Illinois had 76,208 farms, valued at $96,133,290; in 1860, 144,338, valued at $408,944,033. The quantity of land in

farms increased about 77 per cent. during the decade, the improved land 165 per cent., the cash value of farms about 325, and the value of farming implements and machinery nearly 200 per cent.

The value of live stock in 1850 was $24,209,258; in 1860, $72,501,225; and in 1865, according to the State returns, it had advanced to $123,770,554, showing an increase, during the ten years following 1850, of 200 per cent., or 20 per cent. per annum, and 70 per cent. for the five years following 1860, or 14 per cent. per annum.

New York, Pennsylvania, and Ohio, are the only States making larger quantities of butter; and, in the value of slaughtered animals, Illinois is exceeded only by New York.

In 1860, Illinois produced 23,837,023 bushels of wheat, and 115,174,777 bushels of Indian corn, being 14 bushels of wheat and 67 bushels of Indian corn to every man, woman, and child.

The State surpassed all others in wheat and corn products, there having been cultivated upon its soil nearly one-seventh of the entire wheat and corn crop of the United States. In 1865, 177,095,852 bushels of Indian corn were produced, and 25,266,745 bushels of wheat. The entire grain crop in 1865, including Indian corn, wheat, rye, oats, barley, and buckwheat, amounted to 232,620,173 bushels. The crop of potatoes was 5,864,408 bushels, tobacco, 18,867,722 pounds, and hay, 2,600,000 tons, the whole amounting in value to $116,274,322. Besides this, there were produced in 1865, 5,000,000 pounds of cotton, a branch of industry just beginning to receive attention, yet already pronounced one of the most profitable crops in the southern part of the State; also large quantities of grass-seeds, maple and sorghum-sugar and molassess, flax, flaxseed, hemp, hops, silk cocoons, bees-wax, honey, wine, butter and cheese, peas and beans. The wool clip in 1865, was over 6,000,000 pounds; orchard products of the value of $2,000,000, and market $500,000

The year 1865 was unfavorable for wheat in Ohio, Indiana, and Illinois, the yield in each being less than either 1862, 1863, or 1864. Illinois then produced 32,213,500 bushels.

In every year since 1860, the State has maintained a position as the leading wheat and corn-growing region, while the product of other staples is annually increasing.

Although one of the richest agricultural States, a large part is mineral, the coal fields being estimated at 44,000 square miles, and the lead mines as among the most valuable in the world.

The Illinois coal-field stretches from the Mississippi, near Rock Island, eastward toward Fox River, thence southeast through Indiana, and southward into Kentucky, occupying the greater part of Illinois, the southwestern portion of Indiana, and the northwestern part of Kentucky, measuring 375 miles in length

from northwest to southeast, and 200 in width from St. Louis eastward—estimated to contain 1,277,500,000,000 tons of coal, sufficient to furnish an annual supply of 13,000,000 tons for nearly a hundred thousand years, being more than six times as large as all the coal fields of Great Britain, and embracing one-third of all the coal measures of North America.

The present annual product of the State is 1,500,000 tons, the amount increasing every year, and, as the coal is of good quality and easily mined, it is destined to become one of the most prominent interests of the State.

The great lead district of the Mississippi River occupies a portion of northwestern Illinois, southwestern Wisconsin, and northeastern Iowa, covering an area of about 1,000,000 acres, one-sixth of which lies in Illinois, in Jo Daviess County, which has furnished the entire lead product of the country for twenty years. A few mines in Wisconsin and Illinois have supplied and smelted 15,000,000 pounds a year.

Iron ore has been mined in Hardin County, on the Ohio, several furnaces being in operation. Valuable beds of the ore are reported between the Kaskaskia and the Mississippi; also in Union County, and in the northern part of the State. Copper has been found in several counties; also marble, crystallized gypsum, quartz crystal, and silex for glass manufacture; salt also existing in the southern counties, while small quantities of gold and silver have been obtained in the lead district in the northwest corner of the State. Petroleum is found in the northeast part, zinc ore in the lead district in Jo Daviess, sulphur and chalybeate springs in Jefferson and other localities.

Although the leading interest of Illinois continues to be agriculture, its manufactures have been steadily advancing.

In 1850, it had 3,162 establishments, with a capital invested of $6,217,765, producing an annual product of $16,534,272.

In 1860, it had 4,268 establishments, with a capital invested of $27,548,563, producing an annual product of $57,580,887, being an increase in value during the decade of 248 per cent.

While Illinois was fifteenth among the States in general industry in 1850, its advance was so rapid during the decade that, in 1860, it stood seventh; and while its population increased during the ten years at the rate of 101 per cent., the increase in manufactures was still greater, equaling, as before stated, 248 per cent. A similar increase during the ten years following 1860 will make the value of this branch of industry $200,000,000 in 1870, and advance it in rank to be fifth.

According to the State census, the value of manufactured products for 1865, was $63,356,013. The value of real estate and personal property for 1850 is reported in the United States census at $156,265,006, and for 1860, at $871,860,282, being an increase

in the ten years of $715,595,276, or 458 per cent. In 1866, the Governor estimated the real wealth of the State at not less than $1,200,000,000.

The population in 1850 was 851,470, in 1860, 1,711,981, and in 1867, 2,151,007. A density of population equal to that of Massachusetts would give Illinois a population of 8,754,780; a density equal to that of the French empire would increase it to 9,641,340.

The Illinois coal-field covers an area of 44,000 square miles, or three-fourths of the whole surface, and if its soil were cultivated with the laborious care bestowed upon the Belgian fields, scarcely an acre could be designated as waste land.

The railroad system is on a scale commensurate with its advantageous position in respect to agriculture and internal commerce; 3,160 miles are completed and now in operation, 812 miles more are in course of construction, making in the aggregate 3,979 miles, or one mile of railroad to 14 square miles of territory.

Eight lines cross the eastern boundary of the State, and the Mississippi River is approached within the State by thirteen, connecting with the east and west through routes across the Sates of Missouri and Iowa, and northern routes through Wisconsin and Minnesota, westward to the Pacific, and eastward to the great trade marts of the Atlantic coast.

In addition to the facilities thus afforded to commerce, a canal has been constructed from Lake Michigan, at Chicago, to La Salle, on the Illinois River, 100 miles in length, affording communication by water between the lake and the Mississippi. The canal is now being enlarged by deepening its channel to accommodate large class vessels, so that the waters of Lake Michigan will flow through to the Illinois River, the bed of which is improved so as to establish uninterrupted steam navigation at all seasons from the Mississippi, by way of the lakes and the St. Lawrence, to the Atlantic.

The leading city in the State is Chicago, on the west shore and near the southern extremity of Lake Michigan. In 1837 its population was 4,170; in 1850, 29,963; in 1860, 110,973; its population being now over 200,000

THE SOUTHERN STATES.

Nor all those who are seeking new homes will desire to emigrate to the West. There is a numerous class who would gladly exchange the long and severe winters of northern latitudes for a more kindly climate, where labor is unhindered by snow and ice, and soft sunshine and balmy air mark every season. And there are some who are reluctant to leave lands of hills and valleys, and leaping waters, for the more monotonous beauties of the far inland West, with its flower-clad prairie levels and more sluggish streams.

There are others, again, whose tastes and inclinations would lead them where the pioneer's privations and hardships may be avoided, where social institutions and advantages are already established, and the surroundings are in keeping with their early habits and experience. To all with whom these influences may prevail, and to many others, the Southern States of the American Union, glowing with genial warmth, and possessing all the natural elements for a far higher degree of growth and development than they have yet attained, now offer extraordinary inducements for immigration.

The South presents a wide diversity of surface features and resources. Its long line of sea-coast affords ample harbor facilities, its numerous broad and navigable rivers meander through extensive valleys, unrivaled for beauty and fertility, and its climate and soil, while favorable to all the productions of the temperate zone and many of the tropical, are specially adapted to the cultivation of certain staples, such as cotton, rice, tobacco, and sugar, some of which thrive elsewhere but indifferently, if at all. It would seem that in

the bestowal of her bounties upon the South, Nature had denied it nothing.

We shall endeavor to outline briefly the causes which, while disorganizing some of the institutions of the South, have contributed to render it in many respects, at the present more than at any previous time, such an especially inviting field for the emigrant.

But a few years ago the South was in the full tide of prosperity and advancement. Its population was rapidly increasing, railroads and telegraphs were being constructed wherever the growing interests of the country required them, and education, science, and art were receiving their dues of nourishment and aid. Millions of acres of bursting cotton-bolls lay like vast snow-fields in the sun, and scattered everywhere were refined and luxurious homes, supported by the varied and abundant crops of a generous soil. The South was the abode of luxury and plenty.

But upon this blossoming tree of progress was also growing an apple of discord. Heeding too much the counsels of men who were smarting under disappointed ambition, and alleged grievances at the hands of the North, the people of the South, underrating the depth and strength of that patriotism which had so long upheld the integrity of our common country, permitted themselves in an unfortunate moment to be dragged into a conflict, the avowed aim of which was to sever the Union—that Union which all the potent traditions of childhood, and the life-devotion and inspired utterances of our wisest and best-loved statesmen, had taught us to hold sacred.

The institution of African slavery had for many years been the principal cause of that sectional bitterness which resulted in this unhappy rupture. On the one side it was upheld as a divine ordinance, patriarchal in its nature and benignant in its effects; on the other it was regarded as contrary to the precepts of the Christian religion, and subversive of the great principles of the Declaration of Independence.

The institution was fastened upon this country during its colonial dependence upon England, despite the remonstrances

of many of the colonies. Prior to 1776 it is estimated that 300,000 slaves were imported into the colonies which then declared their independence as the United States of America. In the early days of the Republic there was a very general desire expressed for the abolishment of slavery, some of the Southern States being prominently active to this end. Vermont led the way in 1777, before its admission into the Union. Other Northern States followed, generally passing what were called gradual emancipation acts. New York State passed an act of this kind in 1799, at which time it had upward of 20,000 slaves, and in 1819 adopted another act, declaring that all her slaves should be free in ten years, or by the 4th of July, 1827. Undoubtedly the Southern States would have pursued the same policy but for several circumstances which conspired to fix the institution more firmly upon them. Prominent among these was the invention of the cotton-gin, which at once advanced the culture of cotton to the front rank as a lucrative occupation, and thus rendered slavery more profitable to the Southern farmers. And so slavery continued to flourish, and take deeper root, notwithstanding the warnings of Washington, Jefferson, and many others of the most illustrious statesmen of both Northern and Southern birth, until it had thoroughly incorporated itself with the Southern portion of the great body politic. The slave population had increased from 893,041 in the year 1800, to nearly 4,000,000 in 1860. Numerous anti-slavery societies had meantime been established throughout the North, pledged to agitate the important question to a satisfactory issue, and a great political party, organized in opposition to its extension, whose power first culminated in 1860 in the election of Abraham Lincoln for President of the United States.

At this juncture most of the slave-holding States seceded from the Union, and combining as the "Southern Confederacy," took the initiative in the most fearful strife of modern times. For four long and bloody years the whole land trembled with the shock of war. Marching armies swept over the fruitful fields of the South, leaving in their train nothing but

ruin and desolation. Flying squadrons thundered along beautiful southern valleys, and towns and cities crumbled beneath the storm of shot and shell, or vanished in a fiery flood. Every branch of industry was paralyzed, and few portions of the once prosperous South were exempt from the ravages of this terrible contest.

The armies of the South fought desperately. But destiny had decreed that the equally brave and gallant patriots, who had so nobly and swiftly rallied to defend our flag, should finally march to lasting victory. The Union was restored—every bondman was now and forever freed, and the vast armies were disbanded, to forget the arts of war in cultivating those of peace.

Unharmed beneath the havoc which had thus swept away the results of many years' industry, lay the fertile fields of the South, patiently awaiting their accustomed care, ready to smile again with bountiful harvests at the asking of peaceful labor. But laborers were few. Four millions of slaves who had been chiefly held to farm labor, had suddenly found their freedom, and freedom to their untaught simplicity too often meant the privilege of idleness. The relations existing between former masters and the freedmen were strange and anomalous. The whole labor system of the South was completely revolutionized, and it is found no easy matter to evoke order from the confusion.

During the last year, it was officially stated that the effective labor of the South had been reduced by the war, to one-third its former amount, and many careful and intelligent men placed the estimate at one-fourth. As a consequence, thousands of fenced and cleared fields are to be found throughout the South, untilled for the lack of laborers; and large areas of the most productive land, once thoroughly under cultivation, are now fast growing up with brush and briers. Before the war, large tracts of land were owned by individuals, and cultivated by slave-labor, which, under the present altered state of things, remain uproductive, and are offered to emigrants in farms of any required size, at very low prices.

The tenor of not less than two thousand letters received by the writer within the past four months, from all parts of the South, has led him to believe that at no time since the first settlement of this country, has it offered to the toiling millions of the old world such an immense scope of fertile and improved land upon such advantageous terms.

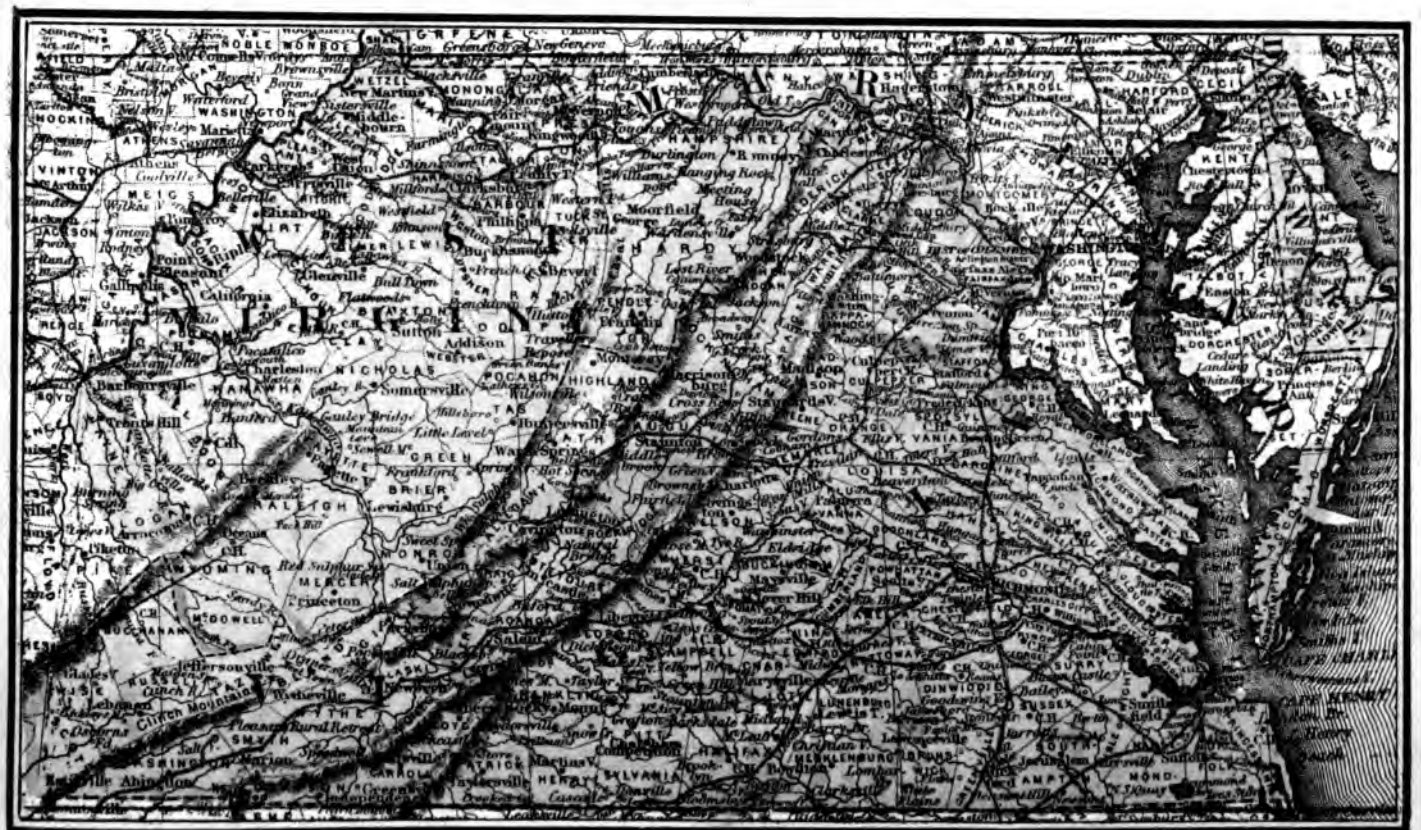
More than three years have now passed away since the war, and the people of the South have unceasingly invited—almost implored—the emigrant to come and see with his own eyes, the opportunities everywhere offered to him. But as yet, compared with the many who have sought homes in the West during this time, few have turned their faces toward the South. There is an obvious reason for this:—

In this country soldiers must feel before they will fight, and it was hardly to be expected that vast numbers of plodding men, banded into a living force and frenzied with the increasing rancor and bitterness of a four years' deadly strife, could be suddenly discharged to the farm or the workshop without, for a time, holding on to the individual feeling of which their armies were the consolidated sum. The Southern soldiers, however, went to their homes proclaiming that they accepted the results of the war as final, and would cordially unite with the North in the re-establishment of harmony and concord. Many at the North believe that the words and deeds of the Southern people are far from showing that they have really intended to ratify and keep this compact: others claim that history records no instance where eight millions of high-spirited people have more quietly accepted such altered circumstances and changed relations, and where such a complete revolution of their hopes, and of matters affecting their material prosperity, has been followed by less general violence and disorder.

But if the latter view be the true one in the main, it can not be denied that in various parts of the South, ignorant and turbulent men, fired with partisan malignity, have committed numerous cruel acts of intimidation and bloodshed, in trying to suppress the great constitutional right of free opinion and

discussion. There is no doubt that these excesses and brutalities have been most earnestly and heartily deplored by the intelligent and order-loving citizens of the South, and that efforts have been made to check and suppress them; but such efforts have not been so far successful as to prevent a wide-spread impression that a reign of terror has existed throughout the Southern States, and that life and property were insecure. This is the only reason why the thousands of eager emigrants who are longing to occupy a land of so much fertility and loveliness, still linger and hesitate.

The future of the South is in the hands of her own people, and now that the heated canvass of a Presidential election is ended, we firmly believe that they are entering upon a new and most auspicious era—that disorder and violence will be restrained—that the recollection of conflicts will soon fade before the resistless march of events—that the same political and social toleration prevailing in other portions of our land, will be here recognized and respected; and that while falling peacefully into line, to meet the living issues of the hour, the Southern people will extend to the immigrant of every land and condition, their far-famed hospitality and welcome.


MARYLAND
VIRGINIA
WEST VIRGINIA
Am. Photo-Lithographic Co. N.Y. (Osborne's Process)

VIRGINIA.

This noble State is conspicuous, not only for its great resources, delightful climate, and the generous hospitality of its people, but also for the number of patriots and statesmen who have sprung from its soil, chief among whom was Washington, whose name will be revered through all time, and whose hallowed ashes still repose at Mount Vernon, in the bosom of his native State. Virginia suffered much throughout the late war as a prominent theater of action for the contending armies, and as the scene of some of its most memorable and decisive battles; and no Southern State now affords greater inducements for immigration, or more urgently invites it.

If the emigrant prefers to remain near the blue waters which perhaps floated him to our shores, he may find lands at reasonable prices near Chesapeake Bay, or the sea-coast. Would he penetrate the interior, Virginia invites him to the fertile banks of the Potomac or the James, or other of her magnificent rivers, or, still farther inland, among the Blue Ridge Mountains, or to the far-famed valley of the Shenandoah.

In its excellent harbors and navigable rivers, Virginia is endowed with pre-eminent facilities for both foreign and inland commerce. Water-power is abundant for manufacturing purposes, and, in addition to a soil of great natural fertility, the State possesses an almost illimitable wealth of mineral treasures. Gold, copper, lead, iron, vast fields of both anthracite and bituminous coal, salt, lime, marl, gypsum, soapstone, marble, and slate, may be enumerated as among her resources under this head, which for the most part have remained comparatively unsought for. Virginia also abounds in mineral springs, many of which have long been noted for their cura-

tive qualities; and possesses many natural curiosities of great interest, one of the most remarkable of which is the Natural Bridge, in Rockbridge County, in the midst of the wild scenery of the Blue Ridge region. According to Thomas Jefferson, this is "the most sublime of nature's works. It is an arch reaching across a narrow ravine, which extends for some distance above and below, at the height of 215 feet above the stream which flows under it, 80 feet wide, and 93 feet long—so beautiful, and arch, so elevated, so light, and springing, as it were, up to heaven—the rapture of the spectator is really indescribable."

Madison's and Weir's caves, near Staunton, are also well known as points of interest to the tourist and lover of nature. The latter is the most extensive, being 2,500 feet in length; it consists of a succession of spacious apartments, one of the largest of which is 260 feet in length, 33 feet high, and 20 feet wide. These large halls are hung with stalactites of rare beauty, formed by the trickling lime-water. These are frequently of the most fantastic shapes, sometimes resembling stiffened waterfalls, columns, thrones, towers, and statues.

All around the mountain borders of the great valley of Virginia are to be found many natural wonders and much grand and sublime scenery.

There are now no Government lands in Virginia subject to settlement under the pre-emption or homestead laws. Farms, however, which were formerly dependent upon slave labor, for their cultivation, and whose owners have no longer the means to work them, may be bought in almost every part of the State at very low prices. The people of Virginia urgently desire immigration, and will cordially welcome among them all worthy settlers. The State is distant from New York only a few hours by rail or steamship, and may be visited with little expenditure of time or money.

From a pamphlet upon the resources of Virginia, prepared last December, for the "information of Europeans desiring to emigrate to the new world," and sent us by J. D. Imboden. Domestic State Agent of Immigration for Virginia, we extract the following:—

No State in the Union presents a greater variety of surface and climate than Virginia—from the mountains of the interior and the rugged hills east and west of them, to the rich alluvions of the rivers, and the sandy flats on the sea-coast. The greatest extent of mountains, and the greatest variety of timbers are found in this State. White Top Mountain, in Grayson County, attains an elevation of six thousand feet.

The State is by nature divided into five districts or regions, viz.: the Lower or Tide-water, the Piedmont, the Valley, the Alleghanies, and the Trans-Alleghanies. We will glance at them in their natural order.

Lower or Tide-water District.—Thirty-seven counties, mostly bordering on the Atlantic Ocean and Chesapeake Bay, compose this district. It is generally level, not more than sixty feet above tide, even in the highest places. Great navigable streams traverse it in a southeastern direction, such as the Potomac, Rappahannock, York, and James, with a multitude of smaller streams. The great slope which forms this district is "divided by natural boundaries into no less than twelve principal peninsulas," says General Wise, of Virginia, in a recent address, replete with valuable information, "the eastern shore of the Chesapeake, that between the Potomac and Rappahannock; between the Rappahannock and Piankatank; between the Piankatank and York; the York and James; the Mattapony and Pamunkey; the Chickahominy and the James; the Nansemond and Dismal Swamp and the Ocean; the Nansemond and James and the Blackwater; the Blackwater and the Nottoway; the Nottoway and Meherrin; the Meherrin and the Roanoke."

This favored region contains every variety of soil. The delta of these rivers "in the borders of Virginia is richer and rarer in every production than the garden of the Nile." There is nowhere near it any "*arida nutrix leonum*," says Gen. Wise, "and its only quags of swamp, even in the Big Dragon of the Piankatank, and on the Chickahominy, and around the fire-fly camp of Drummond Lake, are capable of being converted into a New Holland, by dyke and ditch of easy spit and drain, or horticulture of every fruit and vegetable, where drought can not parch, and of a temperature milder than that much farther south. Vegetation is confined to no one class of plants and trees, and flower, and fruit, and cereal, and staple crops of every variety flourish with a beauty and a fullness and a flavor to cheer industry and art with luscious plenty at home and a paying profit at the markets of every Eastern city. There is a navigable stream at almost every door. There are eligible sites on every creek and river in this region, not only for all the more common fruits, such as apples, peaches, pears, cherries, berries, plums, and melons, but for the rarer and more delicate fruits—such as grapes, figs, pomegranates,

apricots, nectarines, Persian cantelopes, strawberries, and cranberries. According to Prince, there are no sites on the continent so Italy-like for fruits, as some of these peninsulas of lowland Virginia.

The crops of grain and vegetables are still more various, and the lands the easiest tilled in the world, with mines of marl and shell, and fossils and muck for manure in every part. It is a great mistake to suppose that this section is not equally good for stock-raising of its kind, and for clothing as well as for food. It has the finest ranges in its savannas and salt marshes, for small cattle of the Devon breed, and the best for hogs and sheep—and the hardiest blooded horses. The ponies of the Chincoteague Island, will sell for a higher price than any horse in America, proportioned to his girth; and the best racers of the two last centuries were foaled from the blood the south side of the James. Flax and hemp may be grown to any extent, and cotton has been grown profitably. Its forests furnish the choicest ship-timber from its salt sea atmosphere in thirty miles of the coast. Its Hampton Roads is the largest harbor of the continent, to which the eastern rivers converge from every point of the compass for commerce. And, everywhere, on land and water, nature has provided a meat-house of fisheries and game, venison, wild turkeys, quails and woodcock, rabbits, squirrels, robins, sora, reed-birds, shell-fish, scale-fish, terrapins, turtles, swans, wild geese, brant, wild ducks, and plover innumerable, and indestructible.

The salubrity "of its climate," says General Wise, "will compare with that of any region since drainage and liming of the lands began to remove the causes of malarial fevers chiefly at the point where the tides of salt water meet the currents of the fresh water at the rivers."

The entire region is favorable to the growth of the finer kinds of tobacco, offering great inducements for the settlement of growers from the various portions of European tobacco regions. There is no reason why the finest Cuban tobaccos should not grow here, and with the now spreading cultivation of the *Latakia* tobacco plant, brought by Bayard Taylor from Palestine, and successfully introduced already by him in Pennsylvania, a great future is open for this staple in Virginia. Mr. Taylor, thinks this variety incomparably better than the *finest* Yara or Cuba ever grown, and states that it does not deteriorate by being transplanted, but retains perfectly all its delicious characteristics.

Market gardeners near Norfolk cultivate early vegetables for the markets of Maryland, Pennsylvania, and New York, having their produce ripening from three to four weeks earlier than in those more northern latitudes. They have been known, on from five to ten acres in cultivation, to make per annum from $2,500 to $5,000 clear profit. By the Anamessic line of railroad, which

now in thirteen hours' travel connects the city of Norfolk with the metropolis of New York, market gardeners and farmers on the lower Chesapeake Bay, especially those who live in Accomac and Northampton counties, may directly, and those of Princess Anne, Norfolk, York, Gloucester, Mathews, Middlesex, Lancaster, and Northumberland may, by means of their own little schooners, in one night's travel across the bay, offer their produce for sale within twenty-four hours, in the best market on the American continent. The fisheries on these coasts are world-renowned. On the whole line of the counties above mentioned, fish manure can be abundantly obtained for the labor of carrying it away. Wheat and other cereals flourish. During the war in this section, the inhabitants felt no apprehension on the score of living; they could find fish and oysters, and wild ducks, everywhere, and in plenty. In Nansemond County, in the celebrated Dismal Swamp, peat has been discovered. It is now being cut, molded, and shipped to the Northern cities, and found to be extremely profitable.

By allowing one hundred inhabitants to the square mile, and giving sixty acres as a homestead to each family, the lowlands of Virginia can maintain a population of one million and six hundred thousand souls.

Piedmont District.—At the foot of the mountains, stretching away to where the navigation of the rivers which traverse the lowlands ceases,a region embracing thirty-two counties, lies, more diversified in surface than the lowlands—and, of course, more elevated, with a genial, healthful climate. Here are found the greatest inducements for the erection of manufacturing establishments,—natural water-power being everywhere abundantly at command. This land is the Piedmont of Virginia—like the vinous land of Italy, though not so naked. As General Wise says: "For hill and dale, and grove and meadow, for lawns and orchards, and mountain spires and undulating surface of waving wheat-fields and greenswards, and buoyant springs and sparkling fountains, and bracing air—it surpasses all classic lands of Arcadia." It is divided by the James into North and South Piedmont, from the Point of Rocks to Lynchburg, and from Lynchburg to the North Carolina line. The difference in these two divisions of the Piedmont is attributable more to the difference in the past habits of cultivating the two than to any great variation of soil or climate. Though one is farther north, yet the climate of each is much the same as that of the other, both being nearly affected by a mountain atmosphere. The northern has the stiffest clay, and cultivates wheat and corn and artificial grasses, and raises live stock; the southern cultivates mostly tobacco and corn, though wheat also largely, and grazes but little. Both are beautiful and fertile and fit for farming—capable of the highest culture; are cool and bracing in temperature and blessed with health.

This district has an area of ten thousand square miles, and is capable of maintaining a population of one million souls. It is not generally a lime land, but portions of it are very rich, viz.: Loudoun, Fauquier, Albemarle, and Bedford counties. The tobacco which is raised in the southern section of Piedmont, south of 38°, is known as *shipping* tobacco. The *fine* tobacco counties in this section are Albemarle, Henry, Pittsylvania, Halifax, Campbell, &c.

Before we reach the third principal region of Virginia we must cross the Blue Ridge, where we find still some of the most beautiful forests of America, and an atmosphere of surpassing salubrity. The productions of this magnificent mountain-belt are similar to those regions on its sides. Waving wheat-fields and pastures and charming valleys, with grazing cattle and hardy husbandmen, may everywhere be met. Vineyards are everywhere springing up, and its honey finds now, and its wines will soon find, a market in the world.

To the sturdy emigrant this ridge offers still thousands of acres of virgin lands, and nowhere in America will he have nature's assurance of a long life so plainly indicated as here. This ridge alone contains at least two thousand square miles, or one million two hundred and eighty thousand acres—enough to divide into six thousand four hundred farms of two hundred acres each, and to support a population of fifty thousand more than it has now.

Valley District.—Crossing the Blue Ridge mountains we come to the celebrated valley of Virginia (Shenandoah and South Branch), not only renowned for the fertility of its soil—eight thousand square miles in area and capable of supporting eight hundred thousand people—but for the splendid characteristics of its inhabitants—originally English, Germans, Scotch, and Irish, now intermixed in one brave race. A continuation of the fruitful Cumberland Valley of Pennsylvania, it stretches between the Blue Ridge and Alleghany Mountains the entire length of Virginia, obliquely from northeast to southwest, nearly three hundred miles, and is from twenty-five to thirty miles wide. Possessing the finest grazing country in the world, and having throughout a limestone foundation, its lands yield from twenty to forty bushels of wheat, and from forty to fifty bushels of Indian corn is by no means an extraordinary crop.

To show the remarkable permanency of its fertility we cite the following from a traveler in the last century. Burnaby, in his travels, describes the condition of the Germans on the Shenandoah as follows: "I could not but reflect with pleasure on the situation [illegible] people, and think if there is such a thing as happiness in [illegible] they enjoy it. Far from the bustle of the world, they [illegible] the most delightful climate and richest soil imaginable;

they are everywhere surrounded with beautiful prospects and silvan scenes, lofty mountains, transparent streams, falls of water, rich valleys, and majestic woods; the whole interspersed with an infinite variety of flowering shrubs, constitute the landscape surrounding them; they are subject to few diseases; are generally robust and live in perfect liberty; they are ignorant of want and acquainted with but few vices; their inexperience of the elegancies of life precludes any regret that they possess not the means of enjoying them; but they possess what many princes would give their dominions for—health, content, and tranquillity of mind." Seventy years later, Bernhard, duke of Saxe-Weimer, says of this valley: "The country was pretty well cultivated, and by the exterior of many country houses, we were induced to believe their inhabitants enjoyed plenty." Daniel Webster, twenty years after this, in a public oration in the Shenandoah Valley, said "he had seen no finer farming land in his European travels than in that valley." Still twenty years later, and the Northern troops when they entered it victoriously, after its great defender, Stonewall Jackson, had fallen, exclaimed: "Here is a second Canaan, let us rest here and pitch our tents." What gives particular interest to this valley and to the Blue Ridge to the European and Northern emigrant is the fact that there have never been many negroes within them—at this day the land is cultivated almost entirely by white laborers.

THE ALLEGHANIES.—Beyond this valley westward rise the Alleghanies. Their range runs northeast and southwest 250 miles, by 50 miles of average width—making of mountains, valleys, and dales, 12,500 square miles. Besides their aspect of rocks, ridges, caves, valleys, slopes, healing springs, streams, and fountains, they present to the eye a most luxuriant indigenous verdure of blue-grass spread over forests and fields, which offer grazing to live stock on nature's pastures without cost of clearing or cultivation. North of the High Knob and Haystack there are no negroes. The whole region of these mountains abounds in minerals of every description, which wait for capital to develop them. Wheat, rye, oats, and other grains, and the fruits of northern latitudes grow luxuriantly everywhere in the valleys, dales, plateaus, and on the slopes of these rugged mountains, and offer a most inviting home to a Swiss, a Scot, a Swede, a Norwegian, &c. There is room enough in these mountains for one million two hundred thousand immigrants of every kind of occupation.

FARMS—HOW DIVIDED, &C., IN VIRGINIA.—The cultivated land is divided into farms, as follows:—

2,351 farms of 3 and under 10 acres.
5,565 farms of 10 and under 20 acres.
19,584 farms of 20 and under 50 acres.

21,145 farms of 50 and under 100 acres.
34,300 farms of 100 and under 500 acres.
2,882 farms of 500 and under 1,000 acres.
641 farms of 1,000 acres and over.

86,468 farms in all.

The 3,500 large tracts being under cultivation, parts of which are now in the market, lie scattered over the entire State. There are still some public lands in Virginia; but the local land offices have long since been closed, and there are at this time none for sale. We have seen, however, that barely one-fourth of the State is cultivated, the remainder still being virgin soil. The residents are now working but one-half, in many instances less than one-half, of what they did in 1860. Good lands lying idle, together with those that have never been cleared, can now be purchased at from two to twenty dollars per acre, on part payment and credit, or rented, or leased for a term of years on the most advantageous terms and for low prices, or on shares.

Virginia can, with confidence, repose upon her generous soil and salubrious climate. Her present political troubles are but temporary, and need in no way affect the immigrant; they are being rapidly dispersed by the sunshine of a brightly dawning future. We have already welcomed people from the Northern and Southern sections of our Union, who have made here permanent homes, and we have received the Northerner in the same spirit of kindness with which we provided a home for the exiled Poles, in Spottsylvania County, last year. Much remains to be said of her mineral resources, of her growing and extending manufactories, all inviting alike the energy and capital of the world. Of the advantages she offers over the other States of the Union, north, south, west, &c., only a few additional remarks can be made. The list of mineral treasures includes gold, copper, iron, lead, plumbago, coal, salt, gypsum (in vast beds), porcelain, clay, fine granite, slate, marble, soapstone, lime, water-lime, umber, and fire-clay. The ore of Manassas Gap Mine, Fauquier County, seventy miles from Alexandria, yields seventy per cent. of pure copper. But the greatest sources of wealth in this State are her homelier minerals, coal and iron; they are found in the entire extent of the Blue Ridge, Alleghanies, and in Piedmont. In Southwestern Virginia, in the county of Montgomery, coal and iron are found in such juxtaposition—and such is the case along the line of the James River and Kanawha Canal—as to make the manufacturing of iron exceedingly profitable. Here is a vast field for Northern and European enterprise and capital. In Chesterfield and Goochland are the most valuable coal mines, extending over almost the entire counties, which have been for years

worked most successfully, and supply Richmond, Petersburg, and the entire surrounding counties, and millions of bushels are shipped north every year. In Wythe County, in Southwestern Virginia, are lead mines apparently inexhaustible, which, for the last two years of the war, *alone*, supplied the Confederate armies, yielding 150,000 pounds per month, as is stated by Col. W. Leroy Broun, a distinguished ordnance officer of the Confederate service. The mines of Nelson County are also very rich.

The mineral springs of this noble State are among the wonders of the world. Settlements all round them are practicable, and would be quite remunerative, numbers of visitors from all parts of the United States congregating there annually. Petroleum springs are also found; but this branch of industry, as all others in the State, is yet *undeveloped*. There are vast marl deposits—very valuable in the restoration of land—in the counties of King William, King & Queen, New Kent, Hanover, James City, &c. It is a fact that these deposits exist in many places in these counties, within a few inches of the surface.

As regards the *real* advantages of Virginia over the other States of the Union, *they* have been stated impartially in an address of the Colony of New Poland to their countrymen in Europe, dated August 25, 1867. In the resolutions adopted by these colonists occurs the following: "The congeniality of its climate with our constitution; the ascertained productiveness of its lands, and its adaptation to a greater variety of crops than is the land of the Northwestern States and Territories; the hospitality of its people, and the consideration that its local laws extend the same political rights and equal protection to the native and naturalized citizen, and to all religious creeds, in connection with the man's natural disposition to go there in search of the means of living and competency for his family, where their acquisition is easier and more probable, were our only guides in selecting Virginia as our adopted State. We assert now upon the evidence of our own personal experience, acquired since we settled here, that the denial of the existence of these advantages, and better chances of success in Virginia, which can make an agriculturist independent and contented, must be attributed either to gross ignorance of the letter-writers, or to some ill and malicious design." "That the quality of our cleared land is inferior to the newly-cleared land at the Northwest is admitted; but its inferiority is only its exhaustion, caused by bad cultivation; it can, therefore, be improved at less labor and expense, and in shorter time than the clearing of Northwestern land requires. As to our woodland soil, it is not *inferior* to the Northwestern." "Here in Virginia, the winters being shorter and milder, we have in the year four months' longer working season." "And in this State the typhoid and typhus fevers attach to no section, and are

almost unknown, whilst in the new Northwestern settlements they destroy prematurely thousands of lives every year." "We desire to inform our countrymen in Europe that in the selection of Virginia for our adopted State, we were influenced only by the foregoing considerations of advantages."

INTERNAL IMPROVEMENTS.—Internal communications in Virginia and facilities for sending off produce to the great markets at her very doors, are not inferior to those in the Atlantic States; superior to all of the more recent Western States, and not equaled by any of the States south. From Virginia the traveler may proceed to all parts of the Union by railroads; and *direct* lines to the West to connect the harbor of Norfolk with Cincinnati are in contemplation and progress of execution at this time. The railroad, known as the Virginia Central, penetrating the entire breadth of the State, is to be extended from Covington, Va., through West Virginia, thence to the mouths of the Big Sandy and Kanawha rivers, on the Ohio, to the cities of Cincinnati, Louisville, &c., the whole route to Cincinnati being about six hundred and ninety miles in length. The establishment of this great thoroughfare appears no longer to be a matter of doubt, and its importance to all Virginia can not be over estimated. Another road, to go through Kentucky (an extension of the Virginia and Tennessee Railroad) is in contemplation, to connect Norfolk with Cairo and Louisville, Kentucky, and Hickman and Nashville, Tennessee. Of the harbor of Norfolk, Mr. Robert W. Hughes, the President of this proposed road, speaks pointedly that "it possesses over all Northern seaports the advantage of being nearer by overland route to the centers of Western trade; and over all Southern seaports the advantage of being nearer by the ocean route to all European ports." Lieutenant Maury, the greatest authority in such matters, is quoted by Mr. Hughes in regard to Norfolk, as follows: "As to natural advantages of position, depth of water, and accessibility by land and sea, Norfolk has no competitor among the seaport towns of the Atlantic. Its climate is delightful, and it is exactly of that happy middle temperature where the frosts of the North bite not, and where the pestilence of the South walketh not." There were in Virginia, in 1860, 1,771 miles of railroad, constructed at a cost of $64,958,807. Nor has Virginia been behindhand in the construction of canals and river improvements. The Chesapeake and Ohio, the Alexandria, the James River and Kanawha, the Dismal Swamp and the Albemarle and Chesapeake canals constitute a length of line of 381½ miles. The Potomac is navigable for the largest ships to Alexandria, one hundred miles from the Chesapeake Bay, which latter is daily whitened by hundreds of sail; the Rappahannock to Fredericksburg for vessels of 140 tons; the York and its branches to Yorktown, and thence to its head, for the largest ships; the James

to Richmond for vessels of 1,200 tons, and the Appomattox to Petersburg for vessels of 100 tons. In many parts of the State are "turnpikes;" innumerable smaller roads traverse every county, and if they are not quite as passable as similar roads in Europe and the Northern States, there are none worse than some we may see at the present day in France and Germany.

INHABITANTS.—Virginia is among the seven States which were migrative in 1850, and have since changed to be receiving States; since the war, as already said, people, from both north and south of her, are immigrating. The population in 1860 was composed of 1,047,299 white, 58,042 free colored, 490,865 slaves, and 112 Indians, together amounting to 1,596,318. There were among the white population 35,058 foreigners, of which, 5,490 were Scotch and English, 10,512 German, 16,501 Irish, 571 French, &c. Among the cities of over 5,000 inhabitants in 1860 are:—

Richmond,	with	37,910	inhabitants,	including	6,358	foreigners.
Petersburg,	"	18,266	"	"	744	"
Norfolk,	"	14,620	"	"	1,971	"
Alexandria,	"	12,654	"	"	1,246	"
Lynchburg,	"	6,853	"	"	657	"
Fredericksburg,	"	5,023	"	"	234	"

Emigrants coming to Virginia will, therefore, not be as isolated as in other Southern States south of Virginia, and representatives from nearly every nationality on the globe may be found here."

VIRGINIA CROPS FOR 1866.—From the Report of the Department of Agriculture:—

VIRGINIA.	Amount of crops in 1860.	Average yield per acre.	Number acres in each crop.	Value per bushel or pound.	Total valuation.
Indian corn..bushels..	24,369,908	20	1,218,495	$0.73	$17,790,033
Wheat ..... " ..	4,331,364	6.7	646,472	2.85	12,344,387
Rye..... ... " ..	698,453	9	77,606	1.06	740,360
Oats..... " ..	10,245,156	20	512,258	45	4,610,320
Barley ..... " ..	.....	.....	.....	.....	.....
Buckwheat .. " ..	162,686	16.5	9,860	85	138,278
Potatoes..... "	1,592,166	83	19,183	66	1,050,830
Tobacco.....pounds..	114,480,516	718	159,444	13.7	15,683,830
Hay.....tons	203,698	1.3	156,691	14.27	2,908,807
Total.....	.....	.....	2,800.009	.....	$55,266,845

In 1867, Mr. PETERS was appointed by the Commissioner of Agriculture to travel through the South, and distribute seeds to the destitute: we extract from his Report the following:—

"But a small part of the Cotton Belt is found in Virginia. A few counties in the southeastern corner, south of the James River, and along the North Carolina line, embrace all the available cotton lands in the State. * * * As compared with last year, the breadth seeded is nearly double, but as compared with the year before the war, it is not one-half. The want of means, both for paying hands and supporting the working force of the plantation in food and forage, has been the great drawback.

"Tobacco is the great commercial staple of the State. * * The price of the product makes it profitable to cultivate. * * Its successful cultivation is practically better understood than in any other State, except perhaps Kentucky, and there the Virginia method is more or less followed."

THE SHENANDOAH VALLEY.

The great Valley of Virginia is about 120 miles long by about 25 miles wide, and embraces nine counties, with something over one million acres of improved farms, besides farm woodland. In 1860, the average cash value of these farms was $26.69 per acre. The population of the valley in 1860 was 130,356, of which 26,596 were colored. The climate of the valley is salubrious and delightful. The heats of summer are tempered by its elevation and position among the mountains, which also shelter it from the intense cold of winter.

The production of the four great cereals—wheat, corn, rye, and oats—was in 1860 more than 48 bushels to each inhabitant, or between six and seven millions of bushels. It is stated that for years flour made from wheat grown in this valley has commanded in the markets of Brazil $3.60 more per barrel than that from any other portion of the United States. Barley, buckwheat, Irish and sweet potatoes are raised in abundance. Many horses, cattle, sheep, and swine are raised, and much butter and cheese are made. There are 291 churches in the Valley, of denominations as follow, viz.:—

	No. of Churches.	Accommodations.	Value.
METHODIST	108	34,325	$139,580
PRESBYTERIAN	35	13,705	107,800
LUTHERAN	36	12,950	84,050
BAPTIST (Tunker)	17	10,650	19,200
BAPTIST	32	10,475	36,125
EPISCOPAL	16	6,025	83,900
GERMAN REFORMED	11	3,700	20,400
UNION	14	3,450	11,250
FRIENDS	9	3,425	6,700
CATHOLIC	4	2,150	27,000
BAPTIST (Mennonite)	5	2,150	4,400

It is claimed that there is no portion of the country with the same area and population, that has yielded as much from agriculture, with the same amount of labor, and where there is as much exemption from sickness of all kinds, as the Shenandoah Valley of Virginia.

Mr. DODGE, of the Agricultural Bureau, says of this Valley:—

For the variety and fertility of its soils, fine water-power, salubrious and delightful climate, beauty and grandeur of scenery in plain and on mountain, it can literally and with severity of truth, be said to be unsurpassed, if equaled, in the United States; or as a farming region in which to make homes of comfort, opulence, and refinement.

The following is from the Report of the Agricultural Department:—

PRESENT VALUATION OF LANDS AS COMPARED WITH 1860.—Two-thirds of the counties report a decrease in the value of land since 1860, ranging from ten to sixty per cent., and averaging thirty-five; the remainder, with two or three exceptions, make the present price in currency no greater than the valuation in 1860. An average decrease for the entire State may be placed at twenty-seven per cent. This makes the depreciation, in comparison with the date of the last census, about the same percentage as the appreciation which was reported in New York—that is, property worth $100 in 1860, in now valued at $73 in Virginia, and $128 in New York. Yet this reduction is more apparent than real; at least it is not permanent, and is far less marked today than it was a year ago. Very few sales were made at prevailing prices; yet such has been the dearth of money, and almost every thing except land, that more frequent sales—apparent sacrifices—would have been better for the people. Those who are able to hold their land, and many who are not, refuse to sell at less than former prices; still there are thousands of farms or uncultivated tracts of land that can now be bought for less than their intrinsic worth; and there are opportunities, at forced sales or under stress of immediate want, to obtain valuable property for a trifling consideration. In a portion of Loudon, especially the Potomac and Loudon valley, and Clarke County, adjoining, prices are already higher, in consequence of Northern immigration, than in 1860; and such will be the result throughout the State when farms are subdivided and occupied by an enterprising people.

The causes of depreciation assigned are numerous: first of all is the want of labor which is universally noticed; the lack of capital; the large amount of land offered for sale to reduce the

size of farms; State enactments forbidding a higher rate of interest than six per cent., tending to drive capital to cities and out of the State; the stay law; neglect of agriculture; and, finally, reconstruction not in accordance with the judgment or prejudices of reporters. In many sections, there is a prevalent disposition to sell all surplus area of farms above 100 to 200 acres.

Advance in price is noticed in many counties. In Middlesex, on the Rappahannock, land that could have been purchased two years ago for $10, will now command $30. In Pulaski, in the southwest part of the State, while the decline, as shown by the few sales made, is sixty per cent., holders generally are not disposed to sell at less than former rates. This is the fact to a great extent throughout the State, and it gives a wide range to prices, and makes an estimate of an average a very difficult undertaking. The prices are made by the necessities of the sellers.

In 1860, a portion of the Shenandoah Valley, a part of the eastern slope of the Blue Ridge, the James River region, and some other sections, were cultivated, improved, highly valued, and prosperous. Jefferson County averaged $52 per acre, by the official assessment, and probably $80 by real valuation, while the average assessed value of Ohio farms was but $26. Loudon, with 220,266 acres improved, and 75,876 unimproved, was valued at $10,508,211. Mountainous sections, the upper portion of the valley of Virginia, the tide-water region, and the western slopes of the Alleghanies, were less valuable, ranging from $5 to $30, and much higher with valuable improvements, according to location and all the various circumstances which usually affect prices. Farms at $100 per acre, and even $150, were often purchased, and the same prices will soon be reached when losses of population and property have been repaired.

Price of Unimproved Land.—Such has been the waste of war, that "unimproved" lands have encroached upon cultivated areas until nearly all the State is "wild" land. The tracts in original forest, or thrown out of cultivation and covered with new forest growths, will be included in this branch of the subject. In Patrick and other southwestern counties the price is quoted at $1; in Carroll, fifty cents; in Nelson, twenty-five cents; in Botetourt, $1 to $3; in Tazewell, $2.50; in Highland, $2.75; in Clarke, $3 to $6; in Washington, $2 to $3; in Buckingham, $2 to $5; in King George, $4 to $10; in Stafford, King William, Norfolk, and Craig, $5; in York and Middlesex, $6; in Lancaster, $5 to $25; in Smyth, $10 to $25. This shows the range of reports. In the tide-water counties, prices range from $5 to $15 for wild lands, except on navigable water, where the value depends on the amount of wood and timber, sometimes reaching $50.

Lands at $1 per acre in Patrick, are reported "mountainous, heavily timbered, and highly productive." Coal lands, four miles

from the railroad, in Montgomery, can be bought from $3 to $5 per acre, and for $1 to $2, ten miles from the railroad. Mines of great intrinsic value in several counties in this part of the State, are unworked and unopened for want of capital, enterprise, and knowledge of the business of mining. In Wythe, wild lands are "almost valueless except in the neighborhood of iron works," one of a class of facts everywhere appearing in Virginia, which illustrate the creation of values in all of a group of products by utilizing one of them. In Tazewell are tracts of thousands of acres, some of them at lower prices than Government lands. On these mountain slopes and in valleys the pasturage is unsurpassed in the country, and much of it is excellent land for tobacco, grapes, and fruit. Among the mountains are also rough and rocky areas, of little value, except for minerals, in which this county is peculiarly rich. The reporter says of its soil and timber growth: "The greatest source of wealth in this county is from blue-grass. Large portions are used entirely for grazing purposes, as after the timber is deadened and cleared of the undergrowth, the blue-grass springs up at once without sowing or breaking the surface of the soil. It becomes better by use, and if not too closely pastured soon forms a sod that nothing but the stoutest team and most improved plow can break. Formerly a large quantity of sugar was manufactured from the sugar-maple. This from various causes has declined, the two principal reasons being the destruction of the trees, and the labor devoted to its manufacture having to be performed in the early portion of the spring, that should be devoted to preparing for the summer crops. The sugar-maple is fast disappearing. Formerly it predominated. It is the best indication of blue-grass, to which it is rapidly giving way, and is now only found, to any extent, on steep mountain sides, or in groves specially reserved and called 'sugar orchards.' We have the usual variety of the oaks indigenous to this climate. White and blackwalnut, chestnut, buckeye, beech, &c., in their proper locations. Timber is only valuable for building and fencing purposes, as there is no transportation for sending it to market." In King William, on the Pamunkey and Mattapony, are lands subject to overflow, obtainable at $5 per acre, "consisting of both forests heavily timbered, and high woody flats, having the most luxuriant vegetation, and furnishing the finest pasturage for cattle and hogs. As the greater portion of this land is alluvial, rich, loamy soil, its capabilities would be very great if made available by dikes and canals, which would be easily practicable."

The wild lands of the Blue Ridge are exceedingly desirable, from their climate, soil, and location, with reference to markets. They can now be obtained for one-fourth to one-half the price of improved farms. The growths are oaks of several varieties, chestnut, hickory, dogwood, poplar, &c.

A fair indication of the quality of the tide-water lands may be obtained from the following concerning King George County: "A large proportion is of good quality, covered with a good growth of oak, hickory, locust, cedar, pine, &c. Where underlaid with marl, as in the western section, though hilly, it is fertile, easily tilled, and produces finely natural and cultivated grasses. The same, to a less degree, may be said of the unimproved lands in other parts of the county. All are susceptible of high improvement by the use of marl, lime, clover, plaster," &c. Of wild lands in Amelia, held at a nominal price, it is said: "Their capabilities for improvement are excellent, and at small cost they might be made to produce corn, wheat, oats, and tobacco. To get them in the road to self-improvement, requires the capital to purchase grass-seed, and 250 pounds of guano to the acre, to start this vegetation, to make them self-sustaining, and improve the land, by green manuring, to a high degree of productiveness." In Buckingham: "There are large bodies of wild or uncultivated lands, varying in price from two to five dollars per acre, according to their proximity to market facilities. These lands lie well, and abound in oak and pine timber, and are well watered by small streams. The soil is generally gray, soft, and lively, and, when cleared and brought into cultivation, is susceptible of the highest improvement, producing all the crops common to this latitude."

Timber.—The wood and timber of Virginia cover a large portion of her area. Much of the eastern and central forests have been culled, and large areas of arable land have grown up in pine and other growths; yet there still remains, even on the navigable waters, which are estimated to have a coast line of fifteen hundred miles, a large amount of timber suitable for ship-building, cooperage, and various manufacturing purposes. On the Blue Ridge, within a few miles of the Orange and Alexandria Railroad, are some forests of original growth, which are never utilized, but deadened, and left to decay, when the soil is wanted for the purpose of agriculture. They are too far from the road to pay for hauling; but for manufacture upon the spot, into a thousand useful forms of domestic or farm utensils, they would prove a source of wealth. In Middlesex: "The Dragon Swamp, which divides this from Gloucester County, is a vast belt of cypress timber, extending nearly thirty miles, with an average width of one-half mile. Very little effort has been made for the development of this vast source of wealth. At the head of navigable water, no enterprise offers a better investment for capital."

Minerals.—It is scarcely necessary to refer to the mineral wealth of Virginia. To mention even the names of the counties, in connection with the several minerals discovered within their boundaries, would occupy the allotted space. The whole valley

of Virginia, for instance, is full of iron; various ores of which are so common that they have been used for making walls instead of fencing. From Botetourt, through Roanoke, Montgomery, Pulaski, Wythe, Smyth, Carroll, and Washington, to the southwest corner of the State, iron, of fine quality, is found in great abundance. It has been practically and successfully tested, for many years, at a few points. Several furnaces are now in operation in Wythe and other counties, and more are in contemplation. In Pulaski, is found "iron-ore in great abundance of the finest quality. There has been until recently, no effort to develop it. A company from Pennsylvania have purchased several tracts, and are now building houses, with a view to commencing operations in the spring. They have purchased very low, and I have understood the property, if located in Pennsylvania, would command several millions." Since the war, a company from Connecticut has purchased property in Carroll, and have erected a smelting furnace, costing some $100,000, and will shortly commence working it. They have raised a large amount of ore, said to be very rich.

The Bath furnace property, in the Shenandoah Valley, with several thousand acres of woodlands in the vicinity, is offered, under compulsory circumstances, for a short time, at a price nearly nominal; and there are other iron-bearing tracts of, perhaps, equal cheapness. But this condition of things is now rapidly disappearing, and prices are advancing as the pressure of adverse circumstances is removed.

Gold is found in Stafford and other counties, and has been worked to advantage at various points. Copper is seen in the mountains of the Blue Ridge, and is abundant in the upper portion of the valley of Virginia, and is mentioned particularly in Louisa and Smyth. Coal is found in all the southwestern counties. In Pulaski, as is claimed, the coal beds underlie 100,000 acres. Lead has been discovered in Wythe, Smyth, and other counties; zinc in the same counties; and plumbago in Smyth. Salt is abundant in Washington, Smyth, and other southwestern counties. Barytes is reported in Smyth and Montgomery. Gypsum, slate, marls, ochers, kaolin, pipe and fine clay, limestone, and serpentine, are very abundant in many sections. The minerals of Virginia will soon be a source of wealth to individuals and the nation.

Crops, &c.—There are few specialties in Virginia agriculture, except tobacco and wheat, and stock-growing in mountainous regions. The scarcity of money, and despondency, caused either by defeat in the late war, or from losses sustained in it, have operated to depress enterprise. A correspondent expresses the general feeling thus: "There is not energy enough among our farmers or laboring classes to make a specialty of any thing, ex-

cept to get bacon and corn-dodgers enough to drive starvation from their doors. Stock is about the only resource upon which we depend for what little money we require. Farms are large, averaging from 500 to 3,000 acres, and we hold on to them with a death-grip, as if our interest in heaven depended upon our broad acres, and will not cultivate it ourselves, nor allow others to do so." This is the case, to some extent; yet the evidence is abundant of a growing disposition to sell, to invite immigration, to welcome business men and farmers, and even to take hold with energy, and push new enterprises to success. Wheat, dry and heavy, yielding superior flour, may be considered a specialty in the Shenandoah Valley, and in many of the central and eastern counties. Corn, for cattle feeding, has been produced largely on the north branch of the Potomac, in the valley of Virginia, and it has been a prominent crop in Norfolk, Gloucester, York, and Lancaster, on tide-water. Our correspondent on York River illustrates the capabilities of this coast-region as follows: "One hundred and ten bushels of corn, forty of wheat, and sixty-four of oats, have been made to the acre. The oats were grown and harvested by myself, on light black land, never manured, and was the second crop of small grain, and the sixth of its cultivation. The other two parcels of land, on which the corn and wheat grew, were heavily manured. The profit was large in each case."

The time of sowing has a wide range; generally through September, and a part of the whole of October, and on the sea-coast to December first. In Pulaski County, the range is through October and November; in Carroll, from August 15th to November 1st. The commencement of sowing, in most of the counties, is during the latter half of September; and the close, upon an average, is from October 15th to 20th. The average for the date of commencing the harvest is June 21st, for the tide-water region, and June 25th for the whole State. The harvest, in most localities, is continued to July, but rarely extends beyond the first week, though sometimes continuing to July 10th, and, in some cases, to July 15th. Late sowing is often practiced to suit the time of corn-ripening, the corn being cut, and the wheat harrowed in. In Wythe, the first half of September is preferred for sowing, "as the wheat gets a better root, is not so liable to be winter-killed, or to rust the next year." In Clarke, "either the Lancaster or Mediterranean sown upon a dry soil, and drought prevailing, with warm weather, are liable to destruction by the fly; but if sown upon a damp soil, in moist weather, escapes the ravages of the fly." The modes of culture are various, and, like those of other parts of the country, generally careless and imperfect. In most of the counties a very small portion is drilled. In a few "valley counties" the drill is considerably used. In

Craig it is common to turn over sod-land with a two-horse plow, then put in wheat with a shovel-plow, or harrow, and sometimes both; and, in corn land, to sow *while the corn is standing*. In Lancaster County, "many farmers cut off the corn, and sow upon the same land, but the greater number, and the best farmers, sow upon fallow." In Greene it is put in with the single and double-shovel plow, the harrow, or double-cultivator.

Blue-grass, white clover, crab-grass, and red-top, everywhere abound for the pasturage of cattle. The average length of the season for exclusive feeding, is nearly eight months, and in mild seasons, in some localities, cattle obtain a subsistence without feeding throughout the year. Provision should be made, however, as it will be by good farmers, for a partial supply for four months or more. Far less hay or other feeding material is required, during this period, than for the same months in more northern latitudes. The price of pasturage varies greatly, ranging from $3 to $16 for the season, according to location and other circumstances. The average is less than a dollar per month. It is high in the neighborhood of Winchester, where lands are high, and grazing is not the principal business; and low on the mountain slopes of the Blue Ridge and the Alleghanies. The winter grazing is often good where the summer grass is not pastured till late in the fall. The following statement of the value of Virginia for grazing is entirely reliable: "The advantages of the valley and mountain glades of Virginia for stock-rearing are remarkable. The census proves that many a county, with large herds, has averaged less than a hundred-weight of hay to each head of cattle! Winter feeding is required but for half the period necessary in New England and New York, and less food suffices during that time, by reason of the mildness of the climate. Beef or mutton can be produced at less than half the cost of northern-grown meat, and cheese made at a saving which would more than double northern profits. Already have cheese factories been started with flattering success. In a recent address before the Border Agricultural Society of Virginia and North Carolina, F. G. Ruffin says he has made, the present year, 180 per cent. profit on a flock of 200 sheep. Fortunes await enterprises in every branch of stock production."

Fruits.—Reports from every county, without exception, are extremely favorable as to capabilities for fruit of nearly all kinds known in the temperate zone. Apples, pears, peaches, plums, apricots, and small fruits of all sorts, grow well in nearly all parts of the State. The only general exception, as to profitable yield, is the plum, which is destroyed by the curculio, as elsewhere. In a few localities in the upper part of "the valley," frost is mentioned as an occasional drawback in peach cultivation. Pears are generally of vigorous growth and productive habit. With few exceptions,

in localities near Washington, Richmond, and Norfolk, fruit-growing has never been engaged in as a business; and the fruit-trees upon farms, which have in many cases been numerous and in great variety, have rarely been cultivated or cared for, and seldom has the fruit been marketed, except when dried or distilled. There is a general disposition now prevalent to utilize and extend the production, as one of the surest and most speedy means of increasing the wealth and prosperity of the State. A correspondent in Clarke County says: "The soil of the valley of Virginia, throughout its whole extent, is admirably adapted to the growth of the apple and pear, but more especially the apple; the tree grows large and bears abundantly. The apple has not been cultivated heretofore with a view to market, but I think will be hereafter. The truth is that apple-orchards have not been considered property. The peach is a very uncertain fruit, rarely producing remunerative crops oftener than once in three or four years, the trees not living more than seven or eight years. When the season is favorable, they grow abundantly. Improved plums are largely cultivated, but scarcely ever produce a crop. Cherries are grown considerably, and are a very certain crop. The strawberry, raspberry, and blackberry are produced in great abundance, the latter two growing wild in every uncultivated piece of ground. Grapes are only grown as garden fruit, and not in regular vineyards; they are very certain to bear. The apple crop in this county was very large this year, and was sold for fifty cents per bushel, and sent to Baltimore." The average yield of a well-cultivated, full-grown apple-tree, in Loudon County, is placed at eight bushels. Large quantities of apple-butter and apple-brandy are reported from Craig. In Scott, "peaches and apples have almost been the staple of the county." Botetourt "is capable of producing, and does produce, vast quantities of fruit, in great perfection, and can be made, with proper culture, one of the finest fruit-growing counties on the continent." In Montgomery, the reporter says, are lands at very low price, that would yield great profits in grape culture, or any variety of fruit production. There are similar lands in almost every county in the State. The slopes of the Blue Ridge afford not only a suitable aspect, in a very favorable climate, for development of rich grape juices, but soils admirably adapted, in geological composition, texture, and drainage facilities, for vineyards, especially with reference to the production of wine.

We invite attention to the following communications and extracts from some of the many scores of letters we have received from Virginia, commencing with that of General Imboden, Domestic State Agent of Immigration for Virginia.

CORRESPONDENCE.

RICHMOND, VIRGINIA, *July* 31, 1868.

FREDERICK B. GODDARD, Esq., New York:—

DEAR SIR:—I am the regularly appointed Domestic State Agent of Immigration for Virginia. Mr. Sharp, the postmaster of this city, a brother-in-law of General Grant, has placed in my hands your letter to him of yesterday's date.

I will forward to your address with this letter some documents, prepared under official sanction, that contain much of the information you desire of a general nature, and that I need not repeat in this letter. I will, therefore, only reply to some of your inquiries not sufficiently answered by these documents.

1st. The price of farms in Virginia. They range from $5 per acre up to $150. The high-priced lands being in the celebrated Shenandoah valley. The region of this State best suited to European Emigrants' wants, is the country lying on the south side of James River, extending from this city to the Atlantic coast, and thence westward along the northern boundary of North Carolina to the Tennessee line. There is room in this part of the State for 100,000 immigrant families. The lands are good, water excellent and abundant, timber in great variety and abundance, railroad facilities ample, and the general healthfulness of the country equal to any part of this continent. The crops are of great variety, including cotton (in some portions), tobacco, wheat, corn, rye, oats, barley, grasses, sweet and Irish potatoes, garden vegetables of all kinds, flax, hemp, beans, and peas. The fruits are apples, peaches, pears, plums, cherries, figs, apricots, nectarines, strawberries, cranberries, currants, gooseberries, and grapes of several of the best wine-producing varieties. * * * It is the opinion of intelligent Swiss and Germans, who, since the war, have traveled here, that at no distant day, this "Southside Virginia" will be *the* great grape-region of America.

Nuts that are abundant are, the walnut, English and American, pecan, shell-bark hickory-nut, hazel-nut, and filbert. Melons of all kinds abound. The domestic animals all thrive and reach great perfection with but little care or attention. Wool growing is particularly profitable. The hop grows wild along many of the streams, and when cultivated yields most abundant crops. The excessive cultivation of tobacco for nearly 200 years with negro labor in nearly all this region exhausted a great deal of the original fertility of the soil under cultivation, but it is very easily and rapidly reclaimed, and more than half the entire country is still in original forest growth, and when cleared will

be found very productive. The lands are generally held in large tracts of from 500 to 5,000 acres. This fact is very favorable to immigration, as the planters all desire to sell off their surplus lands, and thus large bodies in compact form can be obtained for the settlement of colonies of 100 families, or more, together. Farms can be purchased all through this section at from $5 to $20 per acre. The average would be under $10, for lands partly cleared and part in woods, and with some buildings and very fair fences. The present inhabitants do not wish to quit the country, and of course will retain their mansion-houses and principal buildings with that portion of land they expect to cultivate themselves.

The desire is universal for immigration. Nineteen-twentieths of the inhabitants are native Virginians, generally of English or French extraction, or African. The latter are mere laborers, who own no land, and are rapidly going to the towns, and dying off from diseases engendered by idle, vicious habits. Nowhere will a more cordial welcome meet the immigrant. The farmers and planters in the several counties are forming companies to offer lands at low prices to actual settlers. They will wait four or five years for a large part of the purchase-money, and help the new-comer to get started in the world by all the means in their power. In one of these counties—Amelia—about 30 miles from this city, a Holland colony is about to settle. They have had three delegations to visit the county since last March, and are so much pleased that they have commenced purchasing lands preparatory to moving in August and September. I would advise all colonists to do as these Hollanders did, send two or three of their friends here in advance to examine the lands, see the people, and judge for themselves. There is a German society formed in this city to protect and advise their countrymen. I know the gentlemen connected with it, and would advise a correspondence with them, if a personal visit is impracticable.

The class of immigrants most desired are small farmers, who can purchase 50 or 100 acres of land and set up for themselves. The demand for mere laborers is not large, for the reason that a few old faithful negroes stick by their former masters, and work for about $12 per month and their food and houses for their families. Our farmers and planters will not turn these faithful people adrift in the world, and as their fortunes suffered greatly by the war, they are generally not prepared to employ many hired laborers—a few could get employment, and from $12 to $15 per month wages and their board.

There are no free schools, but in every neighborhood are schools and churches supported by voluntary action of the people.

I have confined my remarks mainly to one portion of the State, because in other sections the population is more dense and land

too expensive for immigrants. There are no public lands in Virginia. In the mountain counties there are large bodies of land, in some instances over 100,000 acres in a tract owned by individuals, which can be purchased at from $1 to $5 per acre.

The great mineral region of the State is in the mountain districts, and there are magnificent openings there for capitalists who wish to engage in mining, erection of furnaces, &c.

I need not give you the price of agricultural products, inasmuch as they do not vary far from the New York markets. There are large steamers plying regularly between this city and New York, and even garden vegetables are shipped there in large quantities and at very low rates. We are about to establish a direct steam line between Norfolk, Virginia, and Liverpool, so that all the district of country I have described will be in easy communication with Europe. In view of all the facts I have stated I believe that at this time Virginia is the most inviting field on this continent for the industrious immigrant either of large or small means.

This too will always be a white man's State. The white male population of voting age exceeds the negroes more than 40,000 in the State, and the majority will rapidly increase as white population flows in, and the negroes move southward, as is now their tendency. They will be harmless here. No immigrant need fear any trouble from them, and the whites will welcome all you can send with open arms.

It will afford me pleasure at any time to furnish you any more specific information if desired. I am a native of the State, of German-Swiss ancestry. I know the whole State well.

Very respectfully,

J. D. IMBODEN.

Mr. HENDERSON writes from Loudon County, which lies at the foot of the Blue Ridge Mountains, thirty or forty miles only from Washington City, that lands vary in price from ten to one hundred dollars per acre, the latter well improved.

Mr. BUFORD, of Bedford County, writes:—

I do not hesitate to say that this is one of the most picturesque and beautiful portions of the world, is rolling and bountifully supplied with springs and streams, &c., * * * but we have no labor and no money. * * * A great deal of our land is being sold under decrees of the courts. * * * It sells very low, for we have no money here with which to purchase. The Virginia and Tennessee Railroad runs through the center of our county. We are only about 22 hours' ride from New York City.

From Liberty, Bedford County, Mr. J. P. HURLEY writes, under date of August 1, 1868:—

* * The price of land in this State is nominal, ranging from $3 to $50 per acre; fine lands can be had at from $10 to $20 per acre. * * We have now no organized system of labor * * The colored population has become trifling and useless, and will not work. * * Nature has done every thing for Virginia, art nothing. * * I am a Northern man, and can attest that well-ordered and well-disposed citizens, from the North or anywhere else, are as safe here, or throughout the South, as at home.

From Staunton, Va., July 31, 1868, Messrs. ECHOLLS & Co. write:—

That labor in the valley is scarce; good farm hands, gardeners, carpenters, and good girls for housework would command the very best prices. We pay good laborers from $1 to $1.50 per day, &c., &c. * * We have any quantity of iron, and are only about 100 miles from the great coal fields of Virginia. * * Schools are abundant and tuition low. * * A railroad is now building throughout the length of our valley. * *

Mr. R. M. KENT writes us from Louisa Court-House:—

* * Some of our land is very fine, some poor, but susceptible of improvement; price ranges from $5 to $30 per acre. We have but little labor now except black; price $8 to $12 per month, and not reliable. Northern men will be gladly received. * *

Mr. G. W. READ writes us, under date of August 1, 1868, from Danville, as follows:—

* * Most of the lands hereabouts very improvable; red clay subsoil; well timbered and watered; prices from $2 to $10 per acre. Most of our agricultural products are still raised by the negroes. Before the war the cultivation of tobacco was more profitable than cotton, and nearly all its producers became rich. The tax and other causes have made it now less profitable. "Manufacturing" tobacco now sells here from $15 to $100 per 100 lbs. in the crude leaf state. * * I consider the country between this place and the Blue Ridge the most eligible for immigrants in the [illegible] States. * * Men from the North, who are entirely [illegible]thout decided political preferences, are treated socially [illegible]itizens; and a decided "radical," who is known to [illegible]man, meets with no asperity of treatment from any [illegible] The South earnestly desires an increase of respect-[illegible]e population from every quarter of the globe. * *

From Prince Edwards County, under date August 1 1868, Mr. F. N. WATKINS writes:—

* * Within twenty miles, circumference of Farmville may be found every variety of soil from fertile to barren. * * There is no fixed price for lands. * * Recently propositions were made to some of our planters by the agent of an English company to purchase 15,000 acres contiguous; a judiciary committee made a valuation, and fixed the average at $7 in gold.

WEST VIRGINIA.

A FEW months after the ordinance of secession was adopted by the convention at Richmond, Virginia, in May, 1861, the people of the western portion of the State, dissenting from this measure, applied to Congress for the admission into the Union of a new State, to be called West Virginia, consisting now of some fifty counties of old Virginia, with a total area of about 24,000 square miles. The bill was passed by Congress, and approved by the President on the 31st of December, 1862. In the Constitution of the new State a clause had been inserted providing for the gradual emancipation of all its slaves, which were much less numerous, proportionately, than in Eastern Virginia. This clause continued in effect until the third day of February, 1865, when the State Senate passed a bill, by the decisive majority of seventeen to one, at once abolishing slavery, and making West Virginia a free State. According to the census returns of 1860, the total population of the counties comprised within the limits of the new State was 376,688, of whom 18,371 were slaves.

West Virginia is generally a rugged country, full of diversified scenery, and pure and sparkling streams. Its hills are covered with the thriftiest growth of valuable timber, such as the different kinds of oak, hickory, sugar-maple, black walnut, &c., for which the Great and Little Kanawha and other rivers, furnish easy transportation to the Ohio, and thus to all the markets of the West. Coal underlies almost the entire surface of the State; seams ten or twelve feet thick abound throughout the Cheat River region, the head-waters of the Potomac, and even to the sources of the Monongahela and its numerous tributaries, while it is said that the coal fields of the Great Kanawha valley are scarcely equaled in variety and extent

upon the continent. Cannel, splint, bituminous, and, in short, all varieties except anthracite, exist upon this river and its branches, the Elk and Coal rivers, in almost incredible quantities. It would seem, in view of the ease with which they may be worked, their admirable position in respect to accessibility, the facility with which their products may be carried to market, and the increasing demand and remunerative prices which coal commands throughout the country, that no more reliable and speedy way of realizing a fortune may be found in any portion of the United States than in the development of these coal mines. If it be true, as has been stated, that the consumption of coal in the United States has doubled every six years since it came into general use, the time must soon come when West Virginia will possess, in its vast coal fields, an element of wealth before which the richest mines of gold and silver must sink into comparative insignificance. Extensive purchases of West Virginia coal lands have been made since the war, by both American and foreign capitalists, whose foresight anticipates their rapidly increasing value.

Other minerals of this State are iron, lead, antimony, copper, silver, nickel, borax, soda, petroleum, salt, lime, fire-clay, and slate. Iron is said to be equally abundant with coal throughout the State, and the saline formation is very extensive, although the production of salt has been hitherto chiefly confined to Kanawha and Mason counties. The total manufacture in the latter county, in 1863, was nearly 500,000 bushels.

In the production of petroleum, West Virginia is second only to Pennsylvania. This comparatively new article has become of vast economical and commercial importance. It makes the best and cheapest light of any illuminator yet discovered, and is found to be adapted to a surprising variety of uses, which science is rapidly multiplying. Its most volatile portion, naphtha or benzine, is used as a substitute for spirits of turpentine in paints and varnish. The heavier oil is used extensively as a lubricator for machinery, and a substitute for whale oil in currying leather. It makes excellent

printing ink of all colors, many kinds of soap, and is variously used as a medicine. It is also proposed to use it as a fuel for sea-going steamers, for which purpose it is claimed to be safer and cheaper than coal, and requiring but about one-third its bulk, and fewer men to manage it. From its residuum may be made some of the most beautiful colors in the world, pitch for calking ships, a substitute for sealing-wax, &c., &c.

Flowing wells were first discovered in 1859, and during the following year about 600,000 barrels of crude oil were produced in the United States, which increased to more than 2,000,000 barrels in 1864. The total value of all pretroleum products during that year have been popularly estimated at $56,000,000. The daily production of West Virginia, at the close of 1864, was about 1,000 barrels.

There are few Americans but will remember the intense "oil excitement" which pervaded the whole land at this time. "Oil territory" was sold at almost fabulous prices, and successful operators rapidly realized immense fortunes. The business of producing oil has now outgrown the feverish speculation which formerly surrounded it, but is still one of the most profitable branches of industry in the United States. West Virginia has a large area of productive oil land, and a still more extensive region, with sufficient surface indications to warrant exploration, but yet undeveloped as "oil territory."

Mr. J. R. DODGE, of the United States Department of Agriculture, is the author of a recent work upon West Virginia, which is highly interesting to the general reader, as well as almost invaluable to the emigrant who intends to settle in this attractive young State. Mr. DODGE says that the farm lands embrace four-fifths of the entire area of the State, and that, "in view of their central location, access to eastern markets, and connection with all parts of the Mississippi valley, by river navigation, munificence of forest and field, and greater wealth of mineral beneath," the lands of West Virginia are cheaper than any lands of similar position and value in the country. He further says:—

The mountain regions of West Virginia, in the imagination
strangers conversant with the rocks and crags and general
rrenness so often associated with mountains, may seem un-
orthy of the attention even of farmers. It is a fallacious idea. In
any localities, in which a field of level land is unknown, and all
abrupt and almost precipitous, there is no sign of a gully, or
idence of washing visible, or a swamp, or pool of stagnant
ater, even the bottom of the "sinks," or "devil's punch-bowls,"
hich are hopper-like depressions, sometimes fifty to a hundred
et in depth. Such a region is that of Monroe and Greenbrier,
een with luxuriant herbage or umbrageous with heavy forest,
ith a natural drainage scarcely improvable by art, and exhibit-
g in a powerful light the great value of thorough drainage, in
omotion of health of man and beast, and enhancement in quality
d quantity of nature's products.
The absence of unproductive or waste areas is noticed by the
ost casual traveler through this region; and in this particular
ere is little difference in the several sections of West Virginia.
eep hillsides, abruptly falling from a giddy height, are smooth
a lawn, and as green. Rocks may diversify the landscape, as
rare exception, but, as an almost universal rule, they repose
seen beneath the surface, and never disfigure the view, or do
olence to the economy of nature, or arouse the spleen of the
owman.

After speaking of the unsurpassed salubrity of West Vir-
nia, and of its climate, which is "neither suggestive of hy-
rborean blasts in winter nor a torrid temperature in summer,"
ssessing "neither the saturated and leaky canopy that over-
ngs old England, nor the rainless sky of a California summer,
t a pleasant medium, giving a covering of snow in winter
st sufficient to protect the grass and grain, a rain-fall in seed-
ne ample for the proper preparation of the soil, and a dimin-
ed supply in gentle showers during the later growth and ripen-
g of vegetation," Mr. DODGE thus speaks of the scenery:—

The scenery of West Virginia is worthy of a volume, rather than
e fragment of a chapter. Under the influence of so genial a cli-
ate that semi-tropical forms of vegetation are almost native to its
il, its flora may safely be presumed to equal, if not to surpass, in
riety and magnificence, the wealth of nature in any other State
Continent. In its fauna it is equally distinguished. Birds,
autiful in plumage and sweet in song, give life and grace and
heerfulness to field and forest. The surface is infinite variey.
ills meet in rivulets, and rivulets swiftly swell into rivers, which

leap their mountain barriers and quietly subside into the placidity of the plains below. Mountains rise like little Alps on Alps; glades, those meadows of the mountain, freshen the summer atmosphere with delicious coolness; cultivated slopes, as in Greenbrier and other of the older counties, move the imagination as by a wand of enchantment; deep, winding, fertile valleys lie at the foot of beetling bluffs, full of the fatness of fertility. Everywhere the vision is greeted with variety and beauty. Nature has not only been partial, but prodigal; yet the hand of man is needed to direct and to use this beneficence of benefaction.

The same author says:—

The people of West Virginia are departing from the wisdom of the fathers of the early days, when Sir William Berkeley, the proprietor of a large tract in Shenandoah Valley, eighty years ago, wrote of the new country as follows: "I thank God there are no free schools, nor printing, and I hope we shall not have these hundred years, for learning has brought disobedience and heresy and sects into the world, and printing has divulged them and libels against the best government. God keep us from both." But this departure leads in the direction of a superior wisdom, and a school system has been adopted since the organization of the State, modeled upon the best State systems in the country, the results of which will soon be manifested in general educational improvement.

Schools of a higher grade are beginning to be organized—academies and high schools, and seminaries for young ladies—and the impetus already given to popular progress in mental culture will soon occasion a further demand for superior educational facilities.

There is awakened throughout the State a spirit of lively interest in the construction of roads and the improvement of river navigation, in new enterprises that develop its varied resources, in all measures essential to its security, and the happiness and thrift of its people, and to their mental and moral advancement.

From the March Report of the Department of Agriculture:—

Unlike Virginia, and the other States in the South in which the involuntary labor system existed, West Virginia shows an increase in the value of lands since 1860 amounting to an average of 32 per cent. There is some difference in this appreciation in different parts of the State, the Pan Handle and Ohio River counties being generally above the average. Hancock, Tyler, Webster, and Wood, are placed at 50 per cent. Nicholas, Grant, Cabell, and Mineral, are the only counties returned at rates less than those of 1860. During the oil excitement in Wood and

adjacent counties, prices of farm lands were at least 100 per cent. higher than in 1860. While the actual product of oil has been increased since 1865, wild speculation has subsided, and lands in this vicinity, except those known to be oil-bearing, now average about 5 per cent. increase over prices of the period first mentioned.

LAND.—In the Pan Handle counties wild land is unknown. All is included in farms, and timber reservations are generally occupied as sheep pastures, the underbrush being kept clear. These "wood pastures" are often quite valuable adjuncts to the arable portion of the farms. The unimproved land, or woodland, of Harrison, is held at $20 per acre. The soil, abounding in lime and clay, "will produce any thing." The location of this county is central, with a railroad passing through it. Unimproved tracts in Wood County are placed at $6 per acre. The assessment of 1860 made the average over $9. In Marshall, on the Ohio, below Wheeling, unimproved lands are worth from $6 to $25 per acre; the growth is various and valuable, and the soil productive. Iron ore and coal also abound here. The average price of unimproved lands in Kanawha is $5 per acre. The surface is generally uneven, often declivitous, but the soil is rich and suitable for all farm products, and particularly for fruits. In Mason, hill lands are worth from $8 to $10 per acre; soil, clay, slightly impregnated with lime, productive in grasses, especially blue-grass, which springs up spontaneously when the land is cleared. In Jefferson, the quantity of unimproved land in 1860 was 24,384 acres, and it may now be put down in round numbers at 20,000, worth $6 per acre. It consists principally of land lying along the western slope of the Blue Ridge mountains, valuable for its timber, much of which is chestnut. Unimproved lands in Tyler are valued at $6 per acre, in Barbour $2 to $5; in Randolph $3, adapted to grass and grain; in Nicholas $2, in Cabell $2, suitable for grazing and fruit-growing; in Grant $1, good for sheep pasture and timber; in Webster 75 cents, and in Wyoming 50 cents, valuable for grape culture and wool-growing.

MINERALS.—The minerals of West Virginia are too well known for particular comment. Nearly all of the counties in the Statr contain coal, iron, and other minerals; coal, in veins suitable for working, is found in greatest abundance along the banks of the Upper Ohio, in the hills along the course of the Monongahela and its branches, in the central counties of the State, in the Piedmont region east of the summit, in the Kanawha valley, and in all the counties south of that river. The coal lands of Guyandotte, being bituminous, cannel, and splint varieties, cover nine-tenths of the Guyandotte valley, in horizontal strata in the hills, from three to eleven feet thick, aggregating in some hills, twenty-five or thirty feet. Coal mining in Kanawha is represented as paying well. The inducements for employing capital under practical

supervision is claimed to be very flattering, while complaint is made of the visionary character of recent coal and oil operations. Of Brooke, our correspondent says:—

"The most valuable mineral, however, is bituminous coal, accessible by level adits over the greater part of the county. The stratum is four to five feet thick. In the hills fronting on the Ohio River it is about 200 feet above the river level, and the coal is let down by railways to boats for shipment. Off from the river it is mined merely for home consumption. As soon as railways are made up the valleys, an immense supply can be obtained. About 300 feet beneath the river level, there is another stratum, some six or seven feet in thickness, of superior coal, which has been mined by shafts or galleries at Steubenville, and at Rust Run, on the opposite side of the river. A company was formed a short time ago to mine this coal at Wellsburg, our county seat, but they have as yet failed to commence. This coal is almost wholly free from sulphur, and on that account admirably fitted for working iron."

Iron ore of various descriptions, and of superior quality, abounds in many of the counties. It is worked in a few localities on the Baltimore and Ohio Railroad, but development of the iron of the State can scarcely be said to have commenced. Other minerals are reported in every section of the State. Some of the best timber of the country is to be found here, of all the different kinds of oaks, black walnut, hickory, poplar, cherry, &c. A considerable trade in timber is already in progress in the river counties, and boat-building is engaged in to some extent. The soil is generally productive, yielding well all farm products.

Crops.—Few specialties in agricultural production are noted; the cereals are everywhere cultivated upon farms, and do well. The soil is generally well suited to wheat and corn; the irregularity of surface is the principal drawback to tillage. Forty bushels of wheat to the acre, with good culture, have been obtained in Webster. In the interior counties, the principal market products are wool, sheep, and cattle. In Hancock, Brooke, and Ohio, where nearly as many sheep as cultivated acres are found, hay is worth $16 to $20 per ton, and is a principal crop, yielding, in many cases, three tons per acre. Fruit is a specialty on the Ohio River, to some extent; and tobacco is made a prominent crop on some farms. The following statistics of Ohio County will give an excellent idea of the capabilities of West Virginia soils, and of the ameliorating effect of sheep husbandry:—

"Ohio County has 37,487 acres of improved land; on this there are 40,050 sheep, 3,244 hogs, 1,441 horses, 1,408 cows, 246 oxen, 1,380 other cattle. The production was 20,048 bushels of wheat, 5,639 of rye, 138,430 of corn, 82,101 of oats, 22,072 of barley, 4,372 of buckwheat, 21,449 of Irish potatoes, 823 of sweet pota-

toes, 128,448 pounds of butter, 102,032 pounds of wool, 6,479 tons of hay, besides $54,420 of other products, excluding grapes and wines, which may perhaps reach $100,000 more. On 110,490 acres of land in Ohio, Brooke, and Hancock, there are 102,072 sheep, nearly a sheep to each acre."

The period of sowing is generally included in the latter half of September. In Mineral and Randolph, northern mountain counties, September 1st is the beginning of the planting season, and in the central and southern counties, the season is often prolonged to October 15, and sometimes to the 20th. The harvesting is commenced in the Kanawha valley, June 20; in the central and northern counties, from June 25 to July 1.

The pasture grasses of West Virginia are blue-grass, red-top, white clover, and crab-grass. The length of the season for exclusive feeding in pastures is seven months; in a few mountain counties it is returned as six months; in a few others, eight or nine months; at the same time it is true that cattle are wintered in pastures or forests with very little extra feed, and sheep often with none at all. On the 1st of April, sheep may be seen in excellent condition, which have received little if any attention or fodder during the winter. The price of pasturage varies; increasing in accessible and improving localities.

Fruits.—Nearly all kinds of fruit do well. It is essentially a fruit-growing State. Apple-growing for the New Orleans market has long been a specialty of the river counties. Vineyards in the vicinity of the Ohio have proved exceedingly productive, and far more reliable than in the vicinity of Cincinnati. On the Kanawha, the soil, elevation, and climate, seem peculiarly adapted to grape-growing, and the hills of the southern part of the State are already sought for vine-culture by Europeans, who contemplate colonizing this region with vine-dressers from Europe. In the interior, in absence of transportation facilities, much fruit is dried for the market. In Braxton, the central county, the price obtained for dried peaches, is $2 per bushel—if pared, $3; apples, 75 cents—if pared, $1 per bushel. Apples and pears are claimed to be best adapted to the soil and climate of Hancock County, the crops yielding a greater revenue than any thing else raised from the ground. The Kanawha correspondent says:—

"A neighbor told me yesterday he had an apple-tree which frequently produced 40 bushels, but only every second year. Peaches will yield from four to eight bushels, but can not be relied upon every year, as much as one year in three will miss."

The bell-flower, golden russet, Milam, and Rambo apples, are general favorites, well suited to the river region, very productive and reliable. Peaches in Mineral County, are reported at 50 cents per bushel. Of all fruits in Wood County, apples are the most certain and most profitable, and approach nearer to a staple;

a good orchard of five or six acres sometimes yielding as much money as the remainder of a good farm. In Tyler, 250 apple-trees averaged 4¾ barrels, or 1,200 barrels, worth $2,500. In Jefferson, an average of 200 gallons of wine can be made from an acre of grapes, with moderate cultivation, and with a profit of 90 cents per gallon, equal to $180 per acre. There are some drawbacks, of course, as elsewhere. Early frosts occasionally change prospects of peaches and other fruits. It is noticeable that no correspondent complains of depredations of insects, with the single exception of the curculio upon plums in Harrison. Apples in this county will average a net profit of $600 per acre.

CORRESPONDENCE.

OFFICE OF THE COMMISSIONER OF IMMIGRATION,
PARKERSBURG, W. VA., *August* 5, 1868.

DEAR SIR: * * * * There is an abundant supply of labor here for present wants. We stand most in need of capital to establish saw-mills, and factories of various kinds, and that class of farmers who with a moderate capital possess a home-force wherewith to clear our forests and increase the production of the State. Wool-growers and graziers from the North will find here numerous opportunities to buy improved farms, and a climate and soil much more favorable to their business than in their present location. Very respectfully

J. K. DISS DEBAR, *Commissioner.*

FRED. B. GODDARD, Esq., New York.

CHARLESTON, KANAWHA COUNTY, W. VA.,
August 18, 1868.

F. B. GODDARD, Esq.:—

SIR: Your circular is received, and there is so much that might be said about West Virginia, or even this portion of it—including the valley of the Kanawha and its tributaries—I hardly know how to begin. I am not an old resident here, but it seems to me this is by capitalists overlooked, not to their advantage, and the same by emigrants who wish to settle in a timbered country. But the questions you propound:—

1st. The character of the land of the valley is much the same as that of the Ohio valley, loam and sandy loam, and sells high—from $40 to $100 per acre, that is, improved land—and all the valley is improved. In mountain and smaller valleys the land, may be, is not so thick, and but little, comparatively, improved, and sells from $1.50 to $10 or $12 per acre. This land is well adapted to the raising of stock and sheep. There is now much attention paid, on the waters of Elk River, in this and Clay County, to the raising of tobacco, and so far, with fine success. Last year tobacco

from this neighborhood took premiums at the fair in Cincinnati. There are now many thousands of acres of land on the waters of the Elk which could be bought for from $1.50 to $4 per acre. There is already quite a settlement of Germans in that portion of the State, and I am told there is to be quite an addition this fall. The land is heavily timbered with oak and poplar. The country is hilly, and in many of the hills are fine veins of coal. It is generally well watered.

2d. Labor is in demand. Good farm hands would demand from $12 to $18 per month, and now white hands would be preferred. Mechanics, especially carpenters, are now in good demand at this place. Female servants are, and will be, I am afraid, scarce.

3d. For this latitude, our climate is fine. Our winters are not cold, but usually rather wet. The summers are warm—this one has been *hot*—but in the mountains the nights are always cool. As for health, there are none superior to this. Being an M. D., I speak from careful personal observation. The one fear of ague, which troubles the West so much, would not annoy the emigrant here.

4th. We have minerals to any amount. The salt is developed, and brings to us a large revenue. Iron ore abounds in large quantities, but has not been developed. Coal fills every hill in the land, both cannel and bituminous, and is extensively worked —both kinds. Timber is composed of oak (black and white), poplar, hickory, chestnut, walnut (black), and a little pine.

5th. Corn is the staple, which, until this year, for some time has failed, but farmers feel encouraged again. Oats are a good crop, and tobacco is among the staples. Corn, 80 cents to $1; oats, 30 to 60 cents; wheat, $1.70 to $1.90.

6th. Cincinnati, about 300 miles by river, is our chief market. Steamboat lines furnish transportation, though what is raised in the country always finds a ready market in this town.

7th. In olden times—before the war, I mean—school advantages were bad, but the State of West Virginia has adopted the school system of Ohio and the Eastern States, and now, by being a new thing, works a little roughly, but this will improve. I would consider the school advantages good. As for church advantages in the country, they are not much, but the school-houses are used as churches, and home missionaries and circuit preachers generally give everybody an opportunity of going to church if they choose.

8th. The people here are generally natives, with some Germans, though few of any other nation—unless it be *African*. There is no Government land for pre-emption. About water-power, I don't believe there is a place in America that would furnish better, especially about the falls of the Kanawha, and there is an abundance of it.

Fruit does well here; grapes did a few years ago, but from some reason, recently have failed, though now those trailed up

about a house never fail, and produce well, and I see no reason why they would not in the vineyard; and I am not alone in thinking they would, if we knew how to cultivate them. They are generally cultivated by Germans—and they forget that this is not Germany. Northern men are tolerably well received, though there is some little prejudice existing against them—though none against men of position and influence. I am a Northern man, came here with the army, and am succeeding as well as any man in my profession, but they did not give me any office. A man not a wild fanatic would not find any difficulty.

We have a hope, and one, I think, not without foundation, of the completion of the Chesapeake and Ohio Railroad. We hope work will be commenced generally, soon. It is now progressing slowly; and in case it is completed, it would add to present inducements, and would not be surpassed by any other State. The State is not developed, and a railroad would bring us out into the world, and people out of the State would see the vast mineral wealth of the State. Even now, iron-masters have become interested, and I think will invest, and develop the land. The coal is applicable to the manufacture of iron—it has been tried, and not found wanting. Any thing further needed I will furnish if asked for. Yours, &c.,

L. L. COMSTOCK.

CLARKSBURG, WEST VIRGINIA, *August* 10, 1868.

DEAR SIR:—This approaches somewhat the geographical center of the State and is within what we call the "Monongahela Valley," embracing a country about 100 miles long and 50 broad, and is regarded as the best grazing country that can be found anywhere. It is well watered, and abounds in the finest timber and coal (bituminous). It is not mountainous, but is what we call *hilly*, and nature has so arranged it, that each farmer may have his own coal mine. The *stratum* of coal averages about 8 feet in thickness, lying horizontal, with a slight inclination to the west, lying about half way up from the foot of the hills. Limestone abounds in many portions, but not universal but the soil in general is highly impregnated with lime almost to any depth, and on that account, if properly favored, is inexhaustible, without the aid of any fertilizer. The soil and climate is well adapted to raising wheat, rye, Indian corn, oats, every variety of grass for meadow or grazing, blue-grass being indigenous. The timothy meadows might be made equal to any in the world. Potatoes and all the root crops are excellent, and it is suited to almost all fruits that abound in temperate latitudes; apples particularly fine.

Timber consists of almost every variety of oak, poplar, ash, beech, sugar, hickory, walnut, cherry, maple, sycamore.

The Baltimore and Ohio, and West Virginia railroads pass through it, which together with the rivers afford convenient means of sending to market the surplus produce of the country, timber and minerals.

Good farming lands in the woods range from $2 to $10 per acre—improved lands from $10 to $60 per acre.

Planks about $10 per thousand and other timber at the same proportionate rates, large quantities of which are sent off to the East on the railroad. Wheat about $1 per bushel; corn 50 cents; oats 25 cts.; potatoes 33 cts.; labor about $10 per month. These prices have reference to 1861, and prior thereto. Since then they have increased from 50 to 100 per cent. Field hands and mechanics are the labor most needed. Climate is mild and healthful, requiring but little stabling of animals, the stronger ones live mostly by grazing out during the winter, but no doubt many of them would be benefited by being better cared for.

This point is 84 miles from Parkersburg on the Ohio River, and 380 miles from Baltimore.

Timber and other products are floated down the Monongahela to Pittsburg, where they find a ready and good market.

There is a well-regulated free school system throughout the State, with two comfortable school-houses in each township.

The prevailing religious denominations are Methodists, Baptists, Presbyterians, Episcopalians, and Catholics, all of whom are tolerably well supplied with churches. A very large majority of the people are native born, but there are a considerable number of Irish and Germans, mostly Catholics.

Out of this valley, east, west, and south, lands very much of the same quality may be had much lower.

Yours truly,
GIDEON D. CAMDEN.

F. B. GODDARD, Esq., New York.

P. S. The coal is said to be, for gas purposes, equal to any in the United States, about 300 tons of which are daily sent off on Baltimore and Ohio Railroad from this point, and find a market in Baltimore, Philadelphia, New York.

GRAFTON, WEST VIRGINIA, *August* 10, 1868.

F. B. GODDARD, Esq.:—

DEAR SIR:—This country is healthy, but sparsely settled in the interior, or counties off from the line of railroad. Emigration would be kindly received in all cases. The most of this State is heavily timbered with oak, sugar, and yellow poplar, and in most

counties stone coal is abundant and easily got. Lands can be got from $5 to $10 remote from villages and railroads, and near to them for $15 to $25 improved. This State is rapidly settling up.

Yours truly,
J. J. LOVE.

MARTINSBURG, BERKELEY COUNTY, WEST VIRGINIA,
August 6, 1868.

DEAR SIR: * * * Of this valley it may safely be said that no section of the globe can produce its equal in the same extent of country, in healthfulness, productiveness, scenery, and climate combined. Says a devoted son of the valley: "It is a curious fact, that whilst the pioneers of the valley were rushing with avidity, attracted by the advantages of timber to the comparatively barren and sterile country west of the North Mountain, they passed by, as of little value, the prairie-lands between that mountain and the Shenandoah River, *then* termed, from the absence of timber, the *Barren*. And thus we have the fact before us, that the fairest and most unrivaled inheritance of man—this country, lying between the two mountains, so unequaled in the kindness of its soil, and the loveliness of its landscape, the elysium of the agriculturist, of which it might truly be said, as Byron has said of Italy:—

'Thou art the garden of the world, the home
Of all art yields, or nature can decree;
Thy very weeds are beautiful; thy wastes
More rich than other climes' fertility.'

This country, thus blessed, and thus blessing, was among the last appropriated in the progress of the early settlement of the valley." Thus we see this great valley, extending 200 miles in length, one vast and almost unbroken field of wonderful richness and charming verdure. The soil is mostly of the limestone formation, with some slate bordering along its large streams. Its chief productions are wheat, corn, oats, and rye; and more or less of other cereals usually raised in the same latitude in other lands; and every variety of fruit, in perfection, that can be raised in the same latitude anywhere. Good limestone farms produce from 20 to 35 bushels of wheat per acre; from 40 to 80 bushels of corn, and hay in abundance. The country is well watered with large springs and running streams. Our winters are short and mild. No country can be better adapted for sheep, which are universally healthy, and can most always get their living the year through. The limestone farms sell according to location, &c., at from $50 to $80 per acre; slate farms, from $10 to $30 per acre. Common laborers, such as farm hands, &c., get

from $12 to $18 per month. Mechanics are most needed, and can command $3 per day. Climate delightful, blue skies and pure air, clear cold water from living springs; many of them being chalybeate and sulphur, and *never* a mosquito to disturb your equilibrium or make you ejaculate unrefined interjections. The timber is abundant; large quantities of iron ore, but no coal. Martinsburg is 100 miles from Baltimore, on the Baltimore and Ohio Railroad, which road has a branch running up the valley from Harper's Ferry, so that hardly any farm can be more than 15 miles from railroad transportation.

The majority of our inhabitants are the native Virginian. This (northern) section of the valley is mostly inhabited by Union men, by whom the Northern farmer, mechanic, or capitalist is welcomed with a heartiness that makes him feel at home, and realize the meaning of Old Virginia hospitality. And this feeling, I may say, exists among the people of every political opinion. Now, as to inducements for Northern men to settle here, I will leave it to yourself to deduce from what has already been written.

Very respectfully,

L. A. LUCE.

F. B. GODDARD, Esq., New York.

NORTH CAROLINA.

North Carolina was one of the original thirteen States of the American Union, participating in the early struggles which secured our independence, and actively co-operating with the original founders and leaders of our young Republic. Her territory was a battle-ground on numerous occasions, and her people displayed a courage and patriotism worthy of the renowned and chivalrous ancestry from which they claim descent.

The area of the State is about 45,000 square miles, or 28,800,000 acres. The country near the sea is level, and covered with extensive swamps and marshes. The rivers of the State are not generally navigable, owing to shifting sand-bars at their mouths, and frequent rapids in their descent from the interior.

The soil of North Carolina is remarkably fertile, and the climate favorable to the growth of cotton, rice, tobacco, fruits, &c. Labor and capital are at present much needed throughout the State, and earnest efforts are being made to secure these agencies for a rapid and liberal development of her resources.

We are indebted to ex-Governor Jonathan Worth, of North Carolina, for documents containing valuable information respecting the resources of the State, and an interesting letter, from which we extract the following:—

Dear Sir: * * * In every locality in the State we receive with hospitable cordiality every worthy immigrant who comes to settle among us. * * * The *bona-fide* settler coming here to improve his condition, and thus benefit the State, is everywhere received with cordiality.

Our delightful and healthy climate, the fertility and cheapness of our lands, our inviting mineral resources, and the universal anxiety of our people to have immigrants come among us to improve and develop our resources, are thus far inoperative. Few immigrants come here, because partisan representations have made the false impression that we are a set of savages. North Carolina may proudly challenge comparison of her statistics of crime, and the purity of her judiciary and other civil institutions, with any State of America, or any other country. * * * The two printed documents I send you, both prepared under my auspices, may be relied on as entirely authentic. Any amount of land in the sandy portion of the State, which is particularly suitable for the culture of the Scuppernong grape, and generally very salubrious, may be bought at from $1 to $2 per acre.

I have the honor to be,

Yours very respectfully,

JONATHAN WORTH.

The following is taken from one of the printed documents referred to by the ex-Governor:—

RESOURCES OF NORTH CAROLINA.

The United States Commissioner of Immigration having recently addressed a letter to Governor Worth as to the resources and capabilities of the State, the Governor prepared and transmitted the information contained in the subjoined communication.

STATE OF NORTH CAROLINA, EXECUTIVE DEPARTMENT,
RALEIGH, *June* 13, 1866.

* * * * * * * * * * * *

Geographically, North Carolina is situated half way between New York and the Gulf of Mexico, being included between the parallels of 34½ degrees and 36½ degrees. It extends from the Atlantic coast five hundred miles westward, stretching more than one hundred miles beyond the Blue Ridge mountains, and con-

tains an area of 50,000 square miles, having therefore the same extent as the State of New York. This territory divides itself naturally into three well-marked sections: On the west, the mountainous plateau, having an elevation of 2,500 feet above the sea, and being traversed by several chains of mountains, many of whose peaks attain an elevation of nearly 7,000 feet. On the east lies a low plain, nearly level, partly alluvial and partly sandy, extending about 150 miles from the coast; and between these two spreads the hill country, whose elevation rises gradually from 200 or 300 feet, on the east, to 1,200 feet at the base of the mountains.

The eastern section is mostly covered with pines, the middle and western with vast forests of oaks (of many species) interspersed with the poplar, hickory, walnut, maple, &c. Seven large rivers, with their numerous tributaries, traverse the State, furnishing unlimited water-power as they flow down from the mountains through the middle section; and as they move with a moderate current across the champaign country, on the east, into the chain of sounds which skirt the coast, they furnish, with these, an aggregate of 900 miles of inland navigation, which might be doubled by carrying westward the system of slack-water improvements already commenced. With these navigable waters is interlaced the railroad system of the State, amounting to 998 miles completed, and 400 more in progress, which, with 350 miles of plank-roads and turnpikes, brings the sea-coast into ready communication with every part of the State.

The Soil is very various; alluvial and peaty accumulations abound near the coast and along the rivers, while in the middle and western regions the soil is mainly of granitic origin, and represents every grade of sandy or clayey loam of various fertility.

The Climate has also a wide range, being tempered on the seaboard to something like the mildness of that of the Gulf States, while in the mountain region it approaches the rigor of New York. In the middle section, which constitutes the larger part of the State, and represents the average climate, the mean annual temperature is 60 degrees (Fahrenheit)—the mean summer temperature 75 degrees; mean winter, 43 degrees; extreme summer (diurnal), 89 degrees; average absolute maximum, 99 degrees; extreme winter (diurnal), 20 degrees; average absolute minimum, 12 degrees. The annual fall of rain is 45 inches. The number of cloudy days in the year is 130; rainy days, 60.

The Vegetable Productions are numerous. The most important are wheat, corn, oats, rye, potatoes, sweet potatoes, peas, rice, cotton, tobacco, turpentine, grapes, and fruits. Wheat and corn are produced with facility and abundance in all parts; rye, oats, and potatoes flourish in the middle and western regions; rice, sweet potatoes, and peas in the eastern; tobacco in the mid-

dle; cotton in the southern counties of the middle, and in the eastern section; turpentine and pine lumber are peculiar to the east. The fruits most extensively and largely cultivated are the apple, peach, pear, and cherry, represented by numerous varieties. No part of the continent is better adapted to these than the middle and western regions. The principal grasses are the orchard, herd's, timothy, and blue, to which must be added clover and lucerne. All these flourish in the middle and western regions, and some of them grow wild; hence, stock-raising is easy and profitable. The stock chiefly raised are horses, mules, cows, sheep, and hogs. The grapes usually cultivated, besides foreign varieties, are the Scuppernong, Catawba, Lincoln, and Isabella, all natives of the State, the first three being excellent wine grapes. The Scuppernong is peculiar to the eastern section. The following abstract from the United States Census Report for 1860, will best show the productions and capabilities of the State:—

Live stock.....	3,326,000	annual product.		
Wheat.....	4,700,000	bushels	annual	product.
Corn.....	30,000,000	"	"	"
Oats.....	2,800,000	"	"	"
Rye.....	437,000	"	"	"
Peas.....	1,900,000	"	"	"
Potatoes.....	830,000	"	"	"
Sweet potatoes....	6,140,000	"	"	"
Cotton.....	58,000,000	pounds	per	annum.
Tobacco.....	32,900,000	"	"	"
Rice.....	7,600,000	"	"	"
Wool.....	883,000	"	"	"
Honey.....	2,055,000	"	"	"
Turpentine.....	1,000,000	barrels	"	"

THE MANUFACTURES are chiefly cotton, wool, spirits of turpentine, lumber, iron, and paper.

The amount invested in the manufacture of cotton is $2,250,000; lumber, $1,000,000; turpentine, $2,000,000; iron, $500,000; wool, $350,000.

FISHERIES abound in the sounds and rivers of the eastern counties. The species of fish mostly taken are the herring, shad, bluefish, mullet, and rock. The number of barrels annually packed for market is about 100,000 on the waters of Albemarle Sound. Considerable quantities are packed at other points.

MINERALS.—The most important of these are coal, iron, gold, copper, silver, lead, plumbago, limestone, marble, agolmatolite, soapstone, manganese, whetstones, grindstones, roofing-slates, porcelain clay, and fire-clay. The coal is bituminous, and exists in two beds, situated respectively one hundred and two hundred miles from

the coast, on Cape Fear River and on Dan River. It is abundant, accessible, and of good quality. Iron ore, of excellent quality, abounds in all parts of the State; the principal seat of its manufacture being on the Cape Fear, Catawba, and Yadkin rivers. Gold is found in almost all parts of the State, especially in the middle region; the annual product, for many years, has been $250,000. Copper mines abound in the middle, northern, and western counties. Plumbago is found in great abundance near the capital, and again in the western region; marble in the middle and western; and marl everywhere in the eastern section.

A chain of silver and lead mines (containing gold also) traverses the central portion of the State.

THE POPULATION, in 1860, was 992,622, of which one-third are colored; 3,298 are of foreign birth. One-tenth of the population live in towns and cities.

LAND.—According to the census of 1860, there were 6,500,000 acres of improved land, being about one-fifth of the area of the State. The price at which these lands are held ranges from about $3 to $100 per acre; the average would be about $7.50.

The only qualification necessary to enable a foreigner to own land is, that he take the oath of allegiance to the State, or have become a citizen of the United States.

PUBLIC SCHOOLS were maintained in the State by the means of the income derived from the Literary Fund, which amounted to two million five hundred thousand dollars in 1860. About half of this fund has been swept away by the war; and the system of district schools, which had brought a rudimentary education within the reach of all, free of cost, has been entirely prostrated for the present, but will doubtless be revived in a few years.

The State may be reached directly from Europe through any of her ports—Wilmington, Beaufort, or Norfolk, from which railroads penetrate every part of the State. From New York the distance by railroad or steamer is about 20 hours. The number of newspapers published in the State is about 70; all in the English language.

The above statistics have been prepared, with much care, by the State Geologist, Professor W. C. Kerr, whose information and research will vouch for their entire reliability.

* * * * * * *

Citizens of foreign birth have the same protection of person and property under the laws of North Carolina as her native citizens; and where they are industrious and honest, they are as thrifty and as highly esteemed—many such occupying positions the most honorable and influential. To foreign settlers, of honest, energetic character, the State extends a cordial welcome; and I can assure you, when such come they will be offered the rights and privi-

leges, and the same support and countenance, enjoyed by our native citizens.

Very respectfully,
Your obedient servant,
JONATHAN WORTH,
Governor of North Carolina.

The second document transmitted by his Excellency, and from which we present some extracts, treats of the

SWAMP LANDS OF NORTH CAROLINA.—The Board of Literature of the State of North Carolina owns, in trust for the benefit of Common Schools, all the public swamp lands of the State.

Accurate surveys have not been made of all these lands, and the exact amount can not, therefore, be stated; but enough is known to warrant an estimate of at least one million five hundred thousand acres. The lands are in bodies of from five thousand to ninety thousand acres; and they are situated in the alluvial or coast region of the State, and between the thirty-fourth and thirty-sixth parallels of north latitude.

They lie chiefly in the counties of Beaufort, Hyde, Washington, Tyrrell, Craven, Carteret, Onslow, Jones, Brunswick, New Hanover, Columbus, Cumberland, Bladen, Robeson, and Richmond; and all these counties are accessible to market by water or railroad carriage.

These lands are offered for sale on the most liberal terms, especially to actual settlers; and they present inducements to immigrants and capitalists rarely to be met with.

The Board of Literature will give alternate sections of six hundred and forty acres each, to parties who will drain bodies of these lands; and when a whole swamp can be disposed of at one sale, they will take a price less than the cash value of the timber with which some of the lands are clothed.

* * * * * * * * * * *

The better class of these lands are generally covered with a heavy and dense growth of timber, vines, reeds, and grass; the soil is from five to fifteen feet deep, and consists of decomposed vegetable matter, fine sand, and finely comminuted clay. It produces exuberantly all the grains, grass, cotton, rice, peas, potatoes, turnips, pumpkins, melons, the garden vegetables, apples, peaches, and grapes; but the test of its fertility is its growth of Indian corn, an exhausting crop, which it will yield in large amounts, from year to year, without manures or stimulants, and for an indefinite period.

It will not produce as much per acre as the heavy clay soils in

the highest state of improvement; but considering the difference of the expense of production, the crops of the former are vastly the more profitable.

The average yield of Indian corn per acre, without the application of fertilizers or stimulants, is from fifty to seventy-five bushels; and experience has proved that this will continue, from year to year, for more than a century, while science infers, from the facts of the past and from careful analyses, that even two centuries of close cultivation will not exhaust the natural and ever renewing fertility of these soils.

* * * * * * * * * * *

The swamps of eastern North Carolina do not generate the malaria which, in the marshy regions further south, causes malignant fevers; and the experience of a large population devoted for over a century to open-air pursuits, will confirm the statement that the laborers here, in the woods, in the fields, and on the waters, are generally as healthy as in any part of the country.

* * * * * * * * * * *

In this State, and in this alone, can be profitably produced every staple—agricultural, mineral, and mechanical—of the American Union; and there is the best authority for asserting that the world presents no more inviting field for industrious immigrants.

* * * * * * * * * * *

Order reigns supreme, and life and property are as safe here as in any part of the continent; the people are quietly and earnestly devoting themselves to the arts of peace, and a worthy immigrant who comes to North Carolina from any part of the globe, to join in these avocations, will receive a cordial welcome, and soon find himself at home, and among his friends.

Game, Fish, &c.—The shores of North Carolina must be a paradise to the sportsman and the epicure. Oysters, a great variety of fish, terrapin, &c., &c., abound.

As an illustration of the abundance of game in North Carolina, we offer the following from the pen of an immigrant Virginian:—

"There are ducks of various kinds, of which the canvas-back is the most esteemed. There are also wild geese and swans. Altogether, they congregate in numbers exceeding all conception of any person who has not been informed. They are often so numerous as entirely to cover acres of the surface of the water, so that observers from the beach would only see ducks and no water between them. These great collections are termed 'rafts.' The shooting season commences in autumn and continues through the winter. The returns in game, killed and secured, through any certain time, to a skillful and patient and enduring gunner, are as sure as the profits of any ordinary labor of agriculture and trade, and far larger profits for the capital and labor

employed. The following particular facts I learned from the personal knowledge of a highly respectable gentleman and a proprietor on the sound (Currituck), in Princess Ann. The shooting (as a business) on his shores is done only by gunners hired by himself, and for his own profit, and who are paid a fixed price for every fowl delivered to him, according to its kind, from the smallest or least prized species of ducks, to the rare and highly valued swan. He has employed thirty gunners through a winter. He provides and charges for all the ammunition they require, which they pay for out of their wages. In this manner, he is obliged to know accurately how much ammunition he gives out; and it may be presumed that the gunners do not waste it unnecessarily at their own expense. In this manner, and for his own gunners and his own premises only, in one winter, he used more than a ton of gunpowder, and shot in proportion, which was more than four tons, and forty-six thousand percussion caps."

Agricultural Department Report, 1868:—

VALUE OF LAND AS COMPARED WITH 1860.—Reports from forty-one counties represent a very general decrease in values of real estate. Madison and McDowell report no decrease from prices of 1860, while the latter shows an actual increase on those of 1866. Onslow reports no decrease on well-improved farms, but all others estimate a decline varying from five to seventy-five per cent., and even more, especially at forced sales. As a general rule, small and improved farms have decreased less than large and neglected ones. The general average may be fairly rated at about fifty per cent. The causes are variously stated, as war, change in system of labor, scarcity of money, unsettled state of public affairs, and the unrest of doubts regarding the future.

PRICE OF UNIMPROVED LAND.—Wild or unimproved lands are reported in three general classes: first, lands exhausted, abandoned, and grown up to bushes; second, virgin uplands, generally well timbered; and third, low or swamp lands ("pocoson"), often well timbered. The first, once fertile, can again be restored in time, and by good management; the second, generally requires only clearing and tillage; and the third needs drainage in addition. The second and third can be had at prices varying from fifty cents to ten dollars per acre; the first at even low rates. Pitch and turpentine lands abound in Duplin, Lincoln, Cabarras, Hertford, Sampson, Onslow, and Moore counties, and can be had for from two dollars to five dollars, according to quality and facilities for working and marketing.

"Pocoson" or swamp-lands are reported in quantities in Duplin, Onslow, and a few other counties; in the latter, one body of "white-oak pocoson" of sixty thousand acres, extending into

several adjacent counties, and other tracts nearly as large, requiring combined capital to drain. Another says of these, "the prices are from two dollars to three dollars per acre, and clearing and draining will cost as much more. They are among the most fertile lands when brought into cultivation." Macon County has thousands of acres at State price (twelve and a half cents per acre), large tracts of which are held by speculators at higher rates. Wilkes reports ridge or rolling lands with branch bottoms, one hundred acre farms, one-fourth cleared, cabin, running water, plenty of wood, at two dollars per acre; mountain lands well wooded, generally fertile, and water-power too abundant to be appreciated, at one dollar per acre; Camden County, virgin forest five dollars, and virgin swamp one dollar per acre; Jackson County, mountain lands, rich and loose in quality, much of it stony, averages fifty cents per acre; Caldwell County, all timbered, and water-power abundant, level lands one dollar, and mountain fifty cents per acre; Bertis County is three-fourths timbered upland, formerly held at five dollars—bottom land higher in price. Lands generally of good quality and capable of high improvement in Duplin, Bertis, Halifax, Hertford, Onslow, Wilkes, Wilson, Macon, and Davie counties offered low; greater part of these suitable for cereals and vegetables, fruits of various kinds—some for cotton and tobacco, and a small part for rice.

Among the resources that could easily be made available and profitable in prosperous times, and with a few facilities in marketing, are yellow and pitch pine in abundance, formerly profitable for turpentine and lumber, in Duplin, Onslow, Wake, and other counties; timber of various kinds suitable for building, furniture, &c., in Bertis, Anson, Hertford, Onslow, Sampson, Iredell, Madison, Henderson, Montgomery, Moore, Stokes, and Burke counties; and agricultural resources in marketable products, with a good system of farming, in all, except, perhaps Northampton and Cumberland. Besides these, iron is manufactured in Chatham, Lincoln, and Gaston counties, and found in Randolph, Mecklenburg, Alleghany, Madison, Moore, Davie, and Guilford counties. Gold, silver, and copper are found in Davidson; gold in Stanley, Randolph, Cabarras (the center of the gold region), Lincoln, Anson, Mecklenburg (which is rich also, in zinc, sulphur, copperas, and blue vitriol), Iredell, Rowan, Franklin, Gaston, Caldwell, Moore, McDowell, Rutherford, Guilford, and Burke; copper in Iredell, Rowan, Alleghany, Jackson, and Guilford; bituminous coal in Chatham and Moore, and plumbago in Wake. In most of the counties, however, railroad or other facilities for marketing will be required to make the resources profitable, and at present, even in the best locations, capital, skill, and enterprise are needed.

CORRESPONDENCE.

WILMINGTON, N. C., *August* 12, 1868.

FREDERICK B. GODDARD, Esq.:—

DEAR SIR: The State of North Carolina, to a close observer of nature, presents many singular and rare features, which are veiled in obscurity to the causal observer. It occupies the highest land and contains the highest waterfall. All its rivers (those I mean which take their rise within her borders), empty into other States, except two (Roanoke, on the northern line, and Cape Fear on the southern). Its territory occupies a ridge, jutting into the ocean, almost to the very edge of the Gulf Stream. It is the very center of the United States; and here is the exact dividing line between the northern and southern sections of our country, geographically, as evidenced by the surveyor's compass and other scientific observations, and geologically, by the discovery here, on the Cape Fear River, of the fossil-remains of all northern and southern animals of a former age, which are to be found nowhere else. These are *singular* facts, but none the less facts; and will impress you at once, as indicating a greater variety of climate, water, soil, and production, both of vegetable and mineral, than any other spot of earth of the same size to be found in these United States, or perhaps on the continent.

Our native population may be classed (with exceptions of course)—

Politically,—As conservative, loyal, law-abiding, and brave.

Religiously,—Tolerant, and pure.

Socially,—Hospitable, frank, sincere.

Commercially,—Intelligent, honest, reliable.

The character and price of farming lands vary from 50 cents to $50, according to quality, condition, location, and other circumstances. Any quality, or quantity, may readily be obtained. Labor of every description is much needed; farm labor ranges between extremes of $8 and $20—generally $10 to $15. Mechanics obtain from $30 to $80. All classes are needed.

Climate is salubrious, refreshing breezes from the ocean in summer—thermometer rarely above 80 or below 60. Health good to the natives or acclimated. Not subject to any contagion, or epidemic. We consider the health as good as any other region. Winters mild, snow rare

The resources of coals, minerals of every variety, timber, &c., are unbounded—having no limit as to variety, quantity, or quality.

Character of crops are likewise in varieties: cotton, rice, tobacco, flax, hemp, wheat, rye, oats, barley, buckwheat, clover,

lucerne, grasses in variety; corn, peas in variety; African ground peas (or peanuts), potatoes, castor beans, rape, hops, grapes in variety; garden vegetables, and fruits of every description that can be grown anywhere else.

Facilities for transportation to market, generally good and easy. School and religious advantages, good to fair.

Our State was originally settled by English and French. Subsequently a considerable colony of Scotch refugees, after the battle of Culloden, settled in our State; since which, many Germans, Prussians, and people of the Rhine country, have settled in our State, to say nothing of Northern people, Irish, &c.

From the foregoing statements, you will perceive that our State presents rare attractions in its natural advantages to foreign laboring settlers. Our labor system being entirely destroyed by the abrogation of the institution of slavery, and all the available means of the country being destroyed by the operations of the war, a rare and advantageous opening is offered to foreign laborers, of industrious and thrifty habits, and of honest, temperate, law-abiding settlers. All such will be received with open arms, cherished and protected in all their lawful rights and privileges, no matter where they come from. We have already buried the *war-hatchet*, and hope it may have a *long* and quiet rest. And we are trying hard, and will use our best efforts, to obliterate from our hearts forever, all bitter animosities and the remembrance of them growing out of the late disastrous, suicidal, and fratricidal war, between the two sections of our much-loved country.

I will take pleasure in answering any further questions or inquiries, for the furtherance of the object you have in view, or of advancing the interests of my much-loved country—my own, my native land, made doubly dear, by its present crushed and sorely afflicted condition.

Respectfully, your obedient servant,

H. NUTT.

OFFICE ATLANTIC AND N. C. RAILROAD COMPANY,
NEWBERN, *August* 12, 1868.

DEAR SIR: * * * The lands in this section are very productive, and can, owing to the impoverished condition of our people, be purchased very low. They produce cotton, corn, wheat, oats, rye, potatoes, and, in fact, almost any thing you may desire to plant. There is a large amount of surplus labor, and only money is necessary to put it in operation. Although there is a large amount of unemployed labor now here, capital could employ all, and still more, at remunerative rates. There is no part of the Southern country that offers greater inducements than ours for

farmers who are conversant with vegetable farming, for early shipment to the Northern cities. If a business of that kind were commenced on the line of our road, from Goldsboro' to Morehead City, I have no doubt at an early day it would be carried on to an extent that would not only pay those engaged, but would enhance the lands on the entire line of our road, say ninety-five miles in length. Vegetables of all kinds can be ready for market several weeks earlier here than at Norfolk, thereby giving the advantage of the highest prices for early supplies in your markets. It has already been engaged in to a limited extent; but to make it work well needs capital and a greater number, which would induce a line of steamers from Morehead City, and thus enable all to make prompt shipments and early returns.

Two crops of most kinds of vegetables can be raised in one season. The early Irish potato would be a very remunerative crop, and the outlay would be very light, as the cost of cultivation would be merely nominal. Excuse my rambling way of communicating my ideas; but allow me to express the hope that they may be sufficiently understood to attract attention to this section of country, as I am satisfied all that is required to develop its resources is peace and quiet in the country, and a share of the capital that can not be profitably employed in your section.

There are quite a number of Northern gentlemen here—some farming, some merchandising, some milling, and quite a number holding permanent local and State positions. No one is interfered with in person or property more than they are liable to be in your city.

I am a Southerner, born and raised here, and am associated with both Northern and Southern gentlemen in the position I occupy as President of the above road; and I know no distinction, except that of honesty and capacity. I shall be pleased to confer with you at any time on any matter relating to our section, and the welfare of our people. Very respectfully,

E. P. STANLEY,
Pres't A. & N. C. R. R. Co.

F. B. GODDARD, Esq., New York.

Mr. J. W. STOCKTON, writing from Statesville, says:—

The lands in this county are generally pretty good, particularly on the rivers and creeks. * *

I do not know of any good, faithful working hands who can not get employment, and get the pay according to contract. We did not have a large number of slaves here, as it is not a cotton-growing region. Corn, wheat, oats, and barley, are principal crops. Red clover grows well. But a kind Providence is carpeting the

whole face of our country—woodlands, old fields, roadsides, and alleys—with Japan clover, for hundreds of miles. It is supposed to have been introduced by some trading vessel into one of our southern ports.

We have a very desirable climate, and a healthy one; on the creeks and lower lands some chills and fevers. Timber plenty: pine, oak (the different varieties), hickory, ash, walnut, &c.

We have, also, in this county, fine water-power, sufficient to run any amount of machinery, and already driving fifteen wheat and corn mills, with a number of saw-mills attached; three cotton factories, five wool-carding machines, three oil mills, &c.

Our citizens generally are of a good class, and we have ample religious and school advantages.

Mr. CHARLES F. HARRIS writes, August 2, 1868, from Concord, Cabarras County:—

* * * We want actual, *bona-fide* settlers—men who will have an interest in the soil, and who will devote their energies to the development of our vast resources. To all such, an inviting field is open, and a helping hand will be extended. They will be hospitably received and warmly welcomed, and every advantage offered them to make a good living, and to feel comfortable.

Mr. F. S. WIATT writes from Monroe County, August 11, 1868:—

* * * I will add, that with an enterprising, industrious population, this whole section of country, possessing, as it does, such excellent advantages of climate, soil, and healthfulness, is destined to become, if it is not so already, one of the most desirable portions of the United States. This is my deliberate and candid opinion, and I have lived ten years in Missouri, and am familiar with a large portion of the Mississippi valley—have crossed the continent and resided two years in California.

SOUTH CAROLINA.

South Carolina, in the form of an irregular triangle, with its base upon the Atlantic, lies between North Carolina upon the north, and Georgia upon the south and west. Its area contains 34,000 square miles, equal to 21,760,000 acres. The total population in 1860 was 703,708, of which but 291,300 were white.

South Carolina is well watered, and possesses a very fertile soil, with but little waste or barren land. The numerous fine rivers which traverse the State afford excellent facilities for communication and traffic, and abundant motive-power for manufacturing purposes. Along the sea-coast is a belt of territory, about 100 miles in width, which is flat and frequently swampy. It is traversed by sluggish streams, and covered with forests of pitch pine. Adjoining this region upon the west is an unattractive strip of country called the "Middle Region," consisting principally of low sand-hills. West of the middle country is a belt called the "Ridge," where the country suddenly rises, and continues gradually to ascend, exhibiting beautiful alternations of hill and dale, interspersed with extensive forests, and watered by pleasant streams, until it terminates in the west in the Blue Ridge mountains, of which the highest peak—Table Mountain—rises to the height of 4,000 feet above the ocean level. A range of low, flat islands skirt the more southerly portion of the coast, covered with forests of live-oak, palmetto, and pine, whose density of perennial verdure rivals that of the tropics. These islands, and those along the coast of Georgia, are devoted almost exclusively to the cultivation of the long staple sea-island cotton, the best known to commerce, and which is here grown more successfully than in any other part of the world.

Governor SEABROOKE says:—

South Carolina is most favorably situated, not only with regard to the States of the Union, but to the other portions of the globe. Midway between the frozen regions of the North, and the burning heat of the tropics, in her climate, seasons, and productions, it has been fully represented that she enjoys most of the advantages of all. If we except tropical fruits, to which frost is fatal, her capacity successfully to rear all the grains, fruits, and esculent roots, which enrich more southern countries, is nearly certain. Her latitude for cotton enjoys an extraordinary advantage. Much farther south, the forcing nature of a vertical sun develops the plant too rapidly, thereby running it into weed and foliage; it is from the same cause most exposed to the ravages of the caterpillar and other insects. Farther north, the season is too short to mature an abundant crop of bolls, while the staple degenerates, and becomes less valuable.

The same authority states that there are six varieties of soil, viz:—1st, tide swamp, appropriated to the culture of rice; 2d, inland swamp, to rice, cotton, corn, peas, &c.; 3d, salt marsh, to long cotton; 4th, oak and pine, to long cotton, corn, and potatoes; 5th, oak and hickory, to short cotton, and corn; 6th, pine barrens, to vegetables, fruits, &c. We quote further:

Surprising to many as may be the declaration, South Carolina, in reference to her whole population, is a very healthy country, and by no means a sickly one with regard to her white inhabitants. If the alluvial region, and a few of the middle districts are subject to fevers in summer, the whole State in winter is comparatively exempt from the diseases to which more northern climates are peculiarly liable. The assertion, too, is with entire confidence made, that even during the hot months, in perhaps one-half of her limits, foreigners may reside, not only with impunity, but with renovated constitutions. In the neighborhood of every locality in which mephitic exhalations show the fatality of their power, there are sites for settlements, where vigorous health, under the ordinary safeguards, is always secured. The entire sand-hill country, and pine lands generally, as well as our towns and villages, furnish the most signal evidence of the salubrity of their atmospheric influence. It may here be appropriately observed, that while from causes, several of which are among the arcana of nature, the lower division is becoming gradually but steadily healthier, a portion of the middle zone is decidedly more liable to maladies of a fatal character. If a better system of drainage and other improvements in the cultivation of the ground

do not satisfactorily account for the one, certain agricultural features are perhaps sufficient to explain the other. For the diseases which occasionally clothe in the habiliments of mourning, the people of Abbeville, Union, Chester, and York, it is supposed that the planters of those districts are competent to the diminution of the sources whence they spring.

Governor SCOTT, says in his recent message, July 6, 1868:—

German and French grape-growers will find in our upper tier of counties a soil and climate as genial to the grape as their own vine-clad hills, being precisely on the same parallel of latitude as the great wine-making districts of Spain and Portugal. The Swede and the Dane will find ample scope and verge for their talents for mining in our gold, iron, and lead regions, while even the Hollander, may exercise his cunning, in draining the marsh-lands of our low country, which he may get almost for the asking. Our rivers, abounding with noble falls, are running to waste, when they should resound with the hum of thousands of busy spindles. These invite the manufacturer of the North, who will find labor among us abundant and cheap, and may look from his own door upon fields white with the cotton that supplies his mill.

We have been favored with the following communication from the State Commissioner of Immigration:—

SOUTH CAROLINA BUREAU OF IMMIGRATION,
CHARLESTON, *August* 8, 1868.

DEAR SIR: * * * I beg leave to transmit to you some of my official publications, containing most of the information you seek, in such a form that there can be no doubt. * * * We are now about having a homestead law to $1,500 value, and other favorable developments may be expected. In our mountain regions, valuable and plentiful minerals have recently been found, and the whole region of our low country contains inexhaustible beds of the most valuable phosphates, which are already shipped to Northern and foreign markets. We desire immigrants, and will heartily welcome them.

Yours truly,
JOHN A. WAGENER.

The following are extracts from the late publications referred to in the Commissioner's letter:—

RIVERS.—The principal rivers of the State are, the Savannah, which bounds it on the south, and for nearly 300 miles marks its

line; the Broad River and Pocotaligo, which empty into the Bay of Port Royal, and, by their depth and bold indentations, promise sites for large and important mercantile communities; the Combahee and Ashepoo and Edisto, which empty into the Bay of St. Helena—inferior only to Port Royal—and which are bordered with rich rice and cotton plantations; the Stono, which is in the immediate vicinity of Charleston, and the Ashley and Cooper, on which old Charleston, the noble, hospitable, and heroic old city, is situated; the Santee, which, through its connection with the Congaree and Wateree, runs through the heart of the State up to the mountains; and the Pedee, which receives the Waccamaw of North Carolina into its bosom, and empties into the Bay of Winyah, on which the flourishing town and seaport of Georgetown is situated.

Forests.—Of the 19,000,000 acres of area in South Carolina, there are but about 4,500,000 acres in use, and all the rest are in forest, original as the Lord in his infinite goodness and wisdom has created it. The husbandman will look for the open and cleared field, and he will find enough, and to his heart's content; for of the 4,500,000 acres cleared and in cultivation, at least one-half are now for lease or sale, at very reasonable prices. But the forest of South Carolina—the beautiful, grand, and useful decoration of God's blessed world—where will be found another like it? From the Carolina sea-board, where the tough Palmetto grows, the emblem of the State, to the mountain ridge, where the stately balsam-pine towers beside the fruitful chestnut, the valuable black walnut, and the useful maple, there is hardly a tree on the face of the earth which does not find a congenial home within her borders. The yellow pine, which affords the excellent lumber, rosin, and turpentine of commerce, is liberally intermixed with the oak of every kind. Hickory, walnut, maple, cedar, poplar, cypress, dogwood, locust, ash, aspen, birch, spruce, hemlock, and basswood abound everywhere, and many other woods, for useful and ornamental purposes, provide the most ample supply for the various mechanical trades.

Game and Fish.—The forests of South Carolina abound in deer, bears, foxes, wild-cats, opossums, raccoons, squirrels, and rabbits. Otter, mink, and sometimes beaver, are found on the water-courses. Pigeons, doves, partridges, woodcock, snipe, wild turkeys, and sometimes grouse, are found in most parts of the State, whilst innumerable wild ducks, plover, marsh fowls, and curlews abide in the tide regions. Fresh-water fish are caught in all the streams of the interior, whilst every valuable fish, from the largest to the smallest, is daily brought in regular supply from the rivers and banks near the sea. The luxurious oyster is an article of daily consumption of the people residing in the tide regions, and may be had at any hour for the gathering.

CLIMATE.—The careful emigrant, in seeking a new home for himself and his children and descendants, naturally inquires into its climate, temperature, adaptation to the culture of the great staples of food and commerce, and especially of its healthfulness or salubrity. * * * The climate of South Carolina corresponds with that of the south of France, and of Italy. It has often been the subject of disparagement; but a sober investigation will not only remove every prejudice, but will show its comparative superiority over many other favorite sections of the Union, and a decided superiority over most countries of Europe. It may not be amiss here to mention, that the late war has demonstrated fully and satisfactorily, that even in our low country tidal regions, where strangers formerly were totally averse to dwell, the most perfect state of health may be enjoyed with proper care for personal cleanliness, comfort, sobriety, and regular living—which are the conditions of health in every portion of the world.

Such a climate must necessarily be very beneficial to agriculture, and we therefore not only have a continued and uninterrupted succession of crops, but the produce of almost every section and clime of the earth will here thrive. In this State there is hardly need to house the live stock, excepting, perhaps, for a few inclement days to give them a night shelter. In October and November, our grain seeds are put into the ground; in March and April, corn and cotton are planted; in May and June, our grain harvest is gathered; and in September, our cotton picking commences and the corn is ripe. There is here a happy distribution of the seasons, and not one day in the year the farmer is prevented from some useful employment legitimately consequent upon his calling. How very different in the cold North and West, where winter covers the earth with an icy mantle for months, and compels man and beast to remain in shelter, and to rely only on the stores which summer and autumn have permitted them to gather! The cost alone of a supply of fuel, is an item of great consideration. It has been asserted that the North and West will produce a richer harvest of cereals and grains, per acre, than the South. Even if that were so, the reason would be very simple and easily found. Southern cultivation of the food plants has heretofore been very careless, on account of the very rich returns of their more valuable staples. Indeed, slave labor has been a careless and slovenly labor in every respect. But where the same attention has been paid to the cultivation of the cereals and grains as at the North and West, the result has been not only equal but very often much superior. · Over 100 bushels of corn from an acre have frequently been made in South Carolina, and 60 bushels of wheat; and there is an instance recorded when, with special care and a combination of favorable circumstances,

somewhat over 300 bushels of corn have been gathered from one acre in this State. The average harvest, however, under our present system of cultivation, according to official reports, is about 25 bushels of corn per acre, 15 bushels of wheat, 20 bushels of oats, 15 bushels of rye, 40 bushels of barley, 100 bushels of Irish potatoes, 150 to 400 bushels of sweet potatoes, 40 bushels of rice, cotton about 600 pounds, &c.

PRODUCTIONS.—The usual productions of this State are cotton, the long and short staple, rice, both swamp and upland, tobacco, indigo, sugar, wheat, rye, corn, oats, millet, barley, buckwheat, peas, beans, sorghum, broom-corn, sunflower, guinea corn, sweet potatoes, and Irish potatoes. Hemp, flax, and hops grow luxuriantly. Of fruits, our orchards will show apples, pears, quinces, plums, peaches, apricots, nectarines, cherries, oranges, lemons, olives, figs, pomegranates, and the American date, the persimmons, of many kinds. Of berries, we have the mulberry, raspberry, strawberry, blackberry, huckleberry, sparkleberry, and elderberry. Of nuts, we have the walnut, pecan nut, chestnut, hickory, hazel-nut, and chincapin. The grape grows luxuriantly in every portion of the State. In our woods and swamps enormous vines are found, extending to the topmost branches of the tallest forest-trees. Around Aiken, about 500 acres are now planted in grapes, and the quantity increases annually. The vines are healthy and vigorous. The silkworm thrives well with us, and the *morus multicaulis* flourishes without any more care or attention than any of our forest-trees, and the growth is so rapid that the leaves can be used the second year after planting. The tea-plant is successfully cultivated. Of garden products, we have turnips, carrots, parsnips, artichokes, mustard, benne, rhubarb, arrow-root, water-melons, musk-melons, cucumbers, cabbages, kale, salads, peppers, squashes, tomatoes, pumpkins, onions, leeks, okra, cauliflower, beans, peas, radishes, celery, &c., &c.—in short, almost whatever can be raised in any garden in the world. Of flowers, we have in our gardens whatever the earth will yield in beauty and fragrance. The rose is a hedge-plant, the japonica blossoms in the open air throughout the winter, the jasmine perfumes our thickets, and the violet borders our roads.

LIVE STOCK.—*Horses* and *Mules* may be purchased here at ordinary rates. They are raised without any greater trouble than anywhere else. They are stall-fed when they are working, whilst they are mostly allowed to roam the forest and provide their own support when they are young.

Cattle are very rarely provided with food or provender, excepting the milch cows, to induce them to come home of evenings for milking. Nutritious grasses fatten them rapidly in the summer, whilst in the winter they grow poor from the scantness of the herbage. They are no expense whatever; but of

greater advantage would it undoubtedly be to house and keep them properly, as in the colder sections of the Union, for their manure and steadier increase would surely pay the farmer hand somely for his trouble.

Sheep do well, and are as little expense to the farmer as his other stock, being rarely attended to, excepting to learn them to know their home. They are sheared twice in the year. What has been said of cattle applies to them with equal force.

Swine are very thriving and prolific, on account of the superabundance of food, which our fields, swamps, and forests furnish them. They are suffered to roam at large, simply bearing the mark of the owner, being fed only occasionally, and driven to the pen only when wanted for slaughter.

Cost of a Farm.—A good farm may be had in South Carolina as cheap as anywhere in the Union, perhaps cheaper. The Bureau of Immigration has lands registered at from one dollar to five dollars per acre. Farms may be obtained, having buildings, and fences, and cleared lands enough for a family to work, for five hundred dollars and upward, according to the situation and improvements. The payments can in all cases be made to suit the means of the purchaser. This being one of the oldest settled States, there are no public lands remaining, but the immigrant finds an established society, churches, schools, good roads, bridges, and an orderly and well-regulated neighborhood wheresoever he goes. He will have to expect difficulties and embarrassments at first; for whoever leaves his old home for the land of the stranger, must find things different from what he has been used to. But industry, careful management, and patient fortitude will succeed here as speedily, at least, as anywhere else, in acquiring comfort and a competency.

Manufacturing and Commerce.—With the raw material on the spot, and water-power and fuel everywhere in abundance, no better opening for the establishment of factories can anywhere be found than in South Carolina. This must be obvious to all reflecting minds. We have the cotton, the most valuable manufacturing material in the world, growing in fields on the borders of which the stream passes by, where the mill would find an effective site; we have the iron ore in abundance, and the fuel near at hand, to make our own metal and build our own machinery; we have the clay for stoneware and pottery, the fine kaolin for porcelain, and the silica for glass, in many portions of the State; we have the fine-grained and hard woods in our forests for all the branches of cabinet-making; and we have an excellent and ever-ready market for all our produce. The port of Charleston is connected by a system of railroads with all parts of the State and the whole country, the harbor is safe and capacious, and is visited by vessels from all parts of the world. In addition,

we have the port of Georgetown, and the magnificent Port Royal, situated in a rich and fertile region, enjoying a pleasant and salubrious climate, deep and capacious enough for the maneuvers of the largest war-vessels in the world.

RAILROADS.—A glance at the map will show that a railroad station is within easy reach of every corner of the State. The Charleston and Savannah Railroad connects us with all the principal Southern cities. The South Carolina Railroad runs up to Columbia, the capital of the State, and by a branch to Augusta, from thence forming a chain of connections with the Western States. The Greenville and Columbia Railroad, by its main line and several branches, reaches every western and northwestern section of the State, and by its connection with the Blue Ridge Railroad (which for the present terminates at the German town and settlement of Walhalla, in Pickens District), will in a few years unite us with Cincinnati, in Ohio. The Columbia and Charlotte Railroad traverses the northern sections of the State, and, by the Danville Railroad, terminates in Richmond, Virginia. The Northeastern Railroad connects with the Wilmington and Manchester Railroad, and is one of the lines of travel from Charleston to New York. Thus it will be seen, that this State has a complete net-work of intercommunication, whilst connecting with every main avenue of the business and travel of this continent by direct lines.

CITIES AND TOWNS.—Charleston and Columbia are the principal cities in South Carolina, the former with about 50,000, and the latter with about 20,000 inhabitants. In each district there is a principal town, with a court-house and public offices.

* * * * * * * *

Towns of importance, besides the above, are Summerville, Aiken, Hamburg, Pendleton, Walhalla (the German town in Pickens), Stateburg, Blackville, Branchville, Bluffton, Hardeeville, Adams' Run, Willtown, Mount Pleasant, Moultrieville, and several others. A great number of villages, with stores and post-offices, dot the State in every direction, and every railroad station is a point of trade.

CHURCHES, SCHOOLS, &c.—Every Christian denomination is fully represented in the communities of South Carolina, and the Jews have several synagogues. The Catholic Church have their houses of worship for their native congregations, and also for their Irish, French, and German congregations. The Protestants are mostly Baptist, Presbyterians, Episcopalians, Methodists, and Lutherans. The latter are very numerous, have a large number of churches, and are mostly supported by the Germans and their descendants. * * * Every district is entitled to a portion of the State appropriation for the support of free schools, according to its population and taxes. In the city of Charleston there

is a normal school for the education of teachers. An agricultural college is now being established, but the location has not yet been determined upon. In the city of Charleston there is also a German school, and another in Walhalla, in Pickens District.

* * * * * * * *

On the Savannah there is a monument for the Polish hero, Pulaski; on the Santee there is a monument for the German hero, De Kalb; and never is the great day of Carolina's glory, the anniversary of Moultrie commemorated, without a grateful allusion to the Irish hero, Jasper.

As a religious community, South Carolina can proudly refer to her hundreds of churches, that point their spires to heaven from her hills and dales everywhere. And not in Pharisaical self-righteousness, but with the truly Christian liberality that knows no difference whatever in sect or creed, but appreciates the good in all.

Her system of African slavery enabled her opulent planters to do without every other branch of industry but that of cultivating the soil.

It has been reported that manual labor was not honorable in the South. If this ever was a truth, hard work and steady employ have now become fashionable; and whoever cultivates his fields best, and is personally most industrious, is the most successful and the greatest gentleman. And the immigrant, as a brother workingman, will be heartily welcomed, and will meet with encouragement and friendly offices wherever he exhibits habits of industry, frugality, honesty, and thrift. And the Carolinian, furthermore, instead, as formerly, preferring goods from abroad, will now prefer an article made at home, and feel proud of his choice. What an opening for the mechanic of every trade! Every town, every village in the State, has need of such, and will afford them a competency. Let them come!

From the February, 1868, Report of the Department of Agriculture:—

Real Estate.—Returns represent the decrease in real estate to be from 25 to 80 per cent., making the average for the State about 60 per cent. The causes are variously stated: general indebtedness, scarcity of money, want of reliable laborers, great loss of capital in slaves, want of capital, unsettled condition of the country, general poverty of the people, fear of confiscation, and negro domination.

Union District reports none but worn-out lands, worth little; Chester, the same, but on trap formation, and can therefore be easily reclaimed by deep plowing, while the wooded lands are well timbered. In Spartanburg, woodland is seldom sold, except

as part of cultivated farms, and then at four to five dollars per acre. The uplands are thin in soil; the gray—standing drought—is best for cotton, and the reddish for wheat. Georgetown has pine lands, for poor, coarse pasture, at 50 cents to $1; such as lie near water-carriage are worth $1.50 to $2 for turpentine and lumber. Few sales are reported in Pickens; asking price from 10 cents to $5 for lands that will yield from ten to twenty bushels of corn and four to ten of oats, rye, or wheat. Abbeville unimproved lands are generally poor ridges and abandoned lands, at $2 per acre; Sumter, light sandy, with clay subsoil, at 50 cents per acre, which, if covered with pine, are valuable for turpentine; Richland, from $1 to $5; much is valuable only for timber; the oak and hickory lands will yield 500 to 1,000 pounds cotton, 10 to 20 bushels corn, and 8 to 12 bushels wheat; in York County, King's Mountain lands, fit only for coaling and iron working, are now being operated by two iron companies. Marion has much virgin land, valuable for farming, adapted to cotton, corn, rice, &c.; heavy pine forests, scarcely touched, valuable for naval stores; and swamp lands for oak and cypress lumber—average price $2. Barnwell reports rich alluvial swamp lands on water-courses, expensive to clear and drain, heavily timbered with sycamore, cypress, poplar, short-leaf pine, &c., and cane-brakes, affording rich pasturage the year round. The oak and hickory lands are less rich, but easier cleared. Pine lands and barrens, kept for "ranges," are too poor to cultivate; average price, $2 per acre. Lands rated at 6 bushels corn per acre can easily be made to produce much more by a good cultivator, as 600 bushels sweet potatoes have been produced on such lands by manuring and good tillage. Barnwell District, it is claimed, is peculiarly adapted to produce silks, wines, and fruits, and has railroad and water communication to all parts of the State.

MINERALS.—Iron of superior quality, in great abundance, is found in Spartanburg, but only used for plantation purposes; ore is reported in Abbeville. Gold is found in Spartanburg, in Pickens (where a company is successfully at work, near Walhalla), in Abbeville (where "Horn's gold mine," discovered in 1834, has already yielded $1,000,000, and is still worked with profit); and in York some mines have lately been sold to Northern capitalists, including some California miners. Lead, also, is found in Spartanburg, copper and silver in Pickens, very pure ocher in Abbeville, and immense beds of kaolin and superior buhrstone. Marl in Barnwell contains a large percentage of lime. This district has had several manufactories of cotton, paper, &c., in profitable operation, and some are yet running successfully.

CROPS.—Cotton is the only special or market crop in Spartanburg, Union, Abbeville, Sumter, Richland, York (southern part), Chester, and Marion, and raised also, as one among others, in

Barnwell. All testify that at present it is profitless, and in most cases a losing crop. Rice has been the special crop in Georgetown, but only about one-tenth (5,000 tierces) of the former amount is now raised. Corn and wheat are grown in Spartanburg as a principal crop; also, rye, oats, and common and sweet potatoes for home consumption; the same is true of Abbeville and Chester. In Barnwell, the Irish potato has been grown, with no manuring, and little cultivation except mulching, at the rate of 400 bushels per acre. In the same garden, out of 700 cabbages, 500 bore large heads, some of the Early York 42 inches in diameter, and other vegetables of proportionate size, all showing that the soil only needs better culture to produce abundantly. As the season is from four to six weeks earlier than in New Jersey, market-gardening for Northern markets would be profitable as fruit-growing in the latter State. The only implement for cultivation in Union District is the common one-horse plow, and there is no machinery for harvesting crops. The yield of farm lands is generally 300 to 1,000 pounds seed cotton, 8 to 50 bushels corn, 20 to 40 bushels rice, 4 to 15 of rye, and 10 to 20 of oats. Of course, better implements, thorough tillage, and good use of marl and other materials and manure, would greatly increase these products.

CORRESPONDENCE.

The following interesting letter will repay special attention. Fairfield District is situated centrally in the State:—

WINNSBORO', FAIRFIELD DISTRICT, S. C.,
August 12, 1868.

SIR: * * * The lands in Fairfield District before the war averaged $12 per acre; at this time they average about one dollar per acre. In most cases plantations now sell for less than the improvements upon them cost.

A plantation of 750 acres, the buildings upon which cost over $5,000, sold lately for $1,650. A farm one mile from Winnsboro', containing 100 acres, half in woods and half in cultivation, with orchard, grapery, fine residence, with ice-house, stables, and other large out-houses, besides another farm settlement, costing certainly more than $10,000, sold for $3,000;—payments in one, two, and three years.

A large brick hotel, containing stores and offices, which cost $30,000, sold for $8,000, gold—payable in eight annual installments; the rent of which property, exclusive of hotel and stables, for which there is now no demand, amounted to $2,500 yearly. Property has often sold at lower prices than the above, which

alone occur to the writer at present, and lands often sell as low as fifty cents per acre.

A large portion of the landed property of South Carolina will change owners within the next few years, and will sell at very low prices until immigration causes prices to advance.

The lands of this district have been very fertile, but they have been greatly injured by careless cultivation and slave labor. The old fields, however, are rapidly growing up in pines, and in many places the land is nearly as productive as when first cleared. The soil is chiefly clay, or a gray loam, which is the best cotton land. The surface is hilly or undulating, and is well watered with springs and streams running into Little River, a tributary of Broad River on the west, and into Wateree Creek, a tributary of Wateree River on the east.

Almost any thing which will grow in the temperate zone may be raised here. Whatever will grow in Maine or Oregon, and nearly every thing that will grow in Texas, may be raised successfully in South Carolina. The fact that the cultivation of the soil has produced wealth more rapidly in this State since its first settlement, than has been the case in any other State of the Union, is evidence of the great natural fertility of its soil and the benignity of its climate.

Probably a million acres of land, on the banks of the Santee and the other rivers and creeks of the State, as fertile as the banks of the Nile, remain utterly valueless for the want of capital and enterprise to embank or drain them.

Fairfield District, before the war, produced, annually, about 20,000 bales of cotton, with corn and wheat enough to supply its people. By a subdivision of plantations, improved cultivation, and attention to a variety of crops, the value of our products might be increased tenfold.

We need mechanics of all kinds, and farmers, and intelligent white men of any occupation. In the negro we have an abundance of unthinking and unskilled labor to last for a long time. Nearly every sober and industrious foreigner, whether shoemaker, blacksmith, carpenter, or farmer, who has come to this district, has acquired property; and many of them have acquired wealth. Our own citizens, too, who have in former years moved to Illinois and other Northwestern States, after years of toil in a severe climate, have had their circumstances improved only by increase in the value of their lands. If the value of our lands had been increased by immigration, as was the case there, what a difference there would have been in the comparative wealth of the two sections!

The climate is agreeable and healthful. Upon some of the watercourses chills and fever prevail, but this disease might be prevented by proper drainage and cultivation. Fairfield, with some other

districts in the State, has been noted for the number of large men it produces.

The mineral resources of Fairfield are undeveloped. There are indications of gold and iron—none of coal. The country has been much cleared, but there is still an abundance of timber, as oak, hickory, ash, walnut, pine, &c., &c.

There is, upon some of the streams in this district, water-power for mills or factories rarely surpassed.

The Charlotte and South Carolina, and the Greenville and Columbia railroads, pass through the district. There are churches and schools in every neighborhood. The descendants of settlers from Pennsylvania and Virginia constitute about half of our population; Scotch, Irish, and their descendants, forming the other half, with a few Germans and people from other States.

Northern men who come to settle among us will be kindly received. In this particular, the South has been much misrepresented. Because unprincipled political adventurers have been here treated with contempt, our feelings have been construed falsely into hostility to Northern men. We earnestly invite laboring men, business men, and professional men, from the North as well as from Europe, to come and live among us.

We believe that by coming here they can benefit themselves as well as us and our country. Nothing would more gratify me personally, than to learn that a large colony of Northern farmers had established themselves in South Carolina. Their industry, skill, and good sense would soon place them in the very front rank of *Southerners* in every sense of the word.

Respectfully,

G. H. McMASTER.

F. B. GODDARD, Esq., New York.

Our correspondent at Aiken writes, under date of August 10, 1868:—

I would especially call your attention to the fact of the remarkable salubrity of this climate (of Aiken and vicinity), in connection with the length of the growing-season, and the opportunity for preparing farms during the entire winter. The prospects of a rapid increase in population and wealth, as soon as the excitement incident to the presidential election is over, is most flattering.

Mr. JOHN A. HAMILTON writes from

ORANGEBURG, S. C., *August* 10, 1868.

* * * The lands of this district are adapted to the most successful culture of *upland* cotton, rice, wheat, rye, oats, barley, in-

digo, corn, potatoes, and fruits of every variety, such as peaches, pears, apples, apricots, quinces, &c. The soil is fertile; and previous to the late war, this district afforded wealth equal to any in the State.

The price of labor is regulated by the yield of crops; laborers getting in most cases one-third of the crop.

Climate unsurpassed. Summer extreme heat averaged 85°; winter mild and pleasant.

Timber of every variety—oak, pine, poplar, ash, cypress, cedar, walnut, and maple.

School and religious privileges good.

The principal settlers of this district are Germans; they are in circumstances of comparative affluence, despite the loss of thousands of dollars by the war; but there is an admixture of Irish, English, and French.

Mr. C. W. DUDLEY writes us from Bennettsville, Marlboro' County, in the northern part of the State, under date of August 24, 1868, that —

* * * The county contains a great variety of soil. Where it leaves the North Carolina line, the country is hilly, and as you pursue it to its southern boundary, you descend, as it were, a succession of steps, until you reach a perfect level. Three-fourths of this land is productive, under skillful cultivation. Fertilizers must be used all over it, for this whole country has been long under cultivation, and its natural strength has been very much impaired. * * * Previous to the war, $30 per acre was not considered a very high price for lands which had once been exhausted. Prices would now range at from $5 to $10—though there is not much selling going on. The small farmers could not easily be prevailed upon to sell their lands—those who never owned slaves, or who worked on their own plantations, do not feel the change that the war has brought about, like those whose possessions were much larger, and did not work at all. With them, the fall has been from a precipice—and they are completely ruined—their lands can be bought, and they are anxious to sell them. * * * The negroes know how to cultivate cotton, and are willing to put up with very plain accommodations—a piece of fat meat, and a piece of corn-bread, is all they care for—and as to sleeping, they ask for nothing but a cabin and a fire. On the other hand, the work is not the best in the world—Cuffee loves to talk with every one he sees going along the road—and he is not a very early riser; but even with all that, he is a great institution. The South could not do without him, and if the employer will lay off his coat and go to work in the same field, Cuffee will keep up with him.

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GEORGIA.

In all the elements of wealth and prosperity, few States of the Union are more abundantly blessed by nature than Georgia. Her long line of sea-coast, her extensive system of internal river navigation, and her numerous deep and capacious harbors, afford rare advantages for commercial pursuits, and make nearly every county in the State accessible by water-craft. With such facilities, and with a soil of varied and prolific qualities, it is not surprising that the State of Georgia should have advanced rapidly in growth and development, and assumed a leading position among the Southern States. The climate of Georgia, especially of the interior and southern portions, is balmy and delightful, and her clear sunny skies rival those of Italy in beauty and loveliness.

The islands of the coast, stretching from the Savannah River to the Florida border, afford an excellent natural breakwater, inside of which are smooth and navigable waters, forming a safe and delightful coast route for steamers. These islands are covered with a light sandy soil, which produces fine crops of cotton of the very best grade. Back from the coast are what are called the "tide and swamp lands," suited to the culture of rice. The pine lands commence about seventy miles from the sea, and these yield immense quantities of timber annually. The interior portions of the State contain large tracts of a red loam, favorable to the growth of tobacco, cotton, wheat, corn, &c. Much of this land has been impoverished by the exhausting system of cultivation formerly pursued by the planter; but it can easily be reclaimed by careful fertilization and judicious rotation of crops. The northern parts of the State are better adapted to the growth of the cereals than

for tobacco and cotton, although in some counties, the latter is a good crop.

Georgia presents a rich and attractive field for the geologist. Her gold mines have for many years been profitably worked, and doubtless will be still more productive as experience and science overcome the difficulties which miners have everywhere encountered in the treatment of pyritical and sulphuretical ores. The northern counties of the State comprise what is called the mineral belt. A branch mint was located at Dahlonega many years ago, and was kept in operation until the breaking out of the war of rebellion. Capitalists are turning their attention to the mineral resources of this region, and little doubt is entertained of future satisfactory development. Iron is also found in considerable quantities, and at various points. Already furnaces have been successfully operated, and increased enterprise in this direction must make the manufacture of iron an important interest.

The water resources of Georgia—for internal commerce, for motive-power, and for natural irrigation--could hardly be more conveniently or more favorably distributed. More than fifty rivers water her soil, of which one-fourth are navigable. With such facilities for transportation, the products of every portion of the State can be floated to the sea-board, and thence to most desirable markets. It is estimated that the water-power of Georgia is sufficient to manufacture all the cotton grown in the world, and grind all the wheat and corn produced in the Union.

Before the war, Georgia had become the leading cotton-producing State of the South, and was making rapid strides in internal improvements, in educational progress, and in all that contributes to the highest order of civilization. Extensive railroad lines connected the interior with the coast; colleges and schools were multiplying throughout the State, numerous cotton factories were in successful operation, forges and foundries lifted their illuminated chimneys in many a valley, and the hum of happy and thrifty industry resounded from millions of broad and sunny acres.

The war interrupted all this progress, laid waste many of the principal towns and cities of the State, and left the people generally in an impoverished condition. But the smiling fields, the beautiful streams, the mineral resources, and the same sunny skies, are still left as a basis for renewed prosperity and increased development. Inducements which did not exist when Georgia was in her glory, now present themselves to the emigrant and settler. Lands are cheap—some of them even attainable at mere nominal prices—and the people who own them urgently invite industrious men to come and occupy them.

We copy the following from an article respecting the "Condition and Resources of Georgia," prepared by Rev. C. W. HOWARD, of that State, and published in the Report of the Department of Agriculture:—

The State of Georgia covers an area of fifty-eight thousand square miles. It is the largest of the old States east of the Mississippi River, except Virginia, extending through more than four degrees of latitude, and five of longitude. It is equal in size to England and Wales, and larger than Holland, Belgium, Denmark, and Switzerland united.

The following statistics are condensed from the census of 1860, and the Comptroller-General's report for 1866. The population of Georgia in 1860, was 591,588 whites, 3,500 free colored, and 462,198 slaves; total, 1,057,286, being 18.23 to the square mile.

Of farms of more than 1,000 acres there were, in 1860, 902, being a much greater number of farms of this size than in any other State. The average number of acres to the farm in Georgia, is 430. The number of farms is 62,000; acres of land improved, 8,062,758; of land unimproved, 18,587,732.

The products of the State in 1860 were: tobacco, 919,318 pounds; sugar, 1,167 hogsheads; hemp, 31 tons; peas and beans, 1,765,214 bushels; cotton, 701,840 bales of 400 pounds.

Affected by the terrible casualties of war, by loss of property, by the almost entire loss of two consecutive crops, the people of Georgia have still not "despaired of the republic." Leaving public affairs to the management of those who have control of them, they have addressed themselves with sublime energy to the work of reconstructing their lost fortunes. If they fail, it will be from the operation of causes beyond their reach. Burned cities and villages have been rebuilt, every railroad has been repaired, and is again in running order, new railroads are in progress of

construction, factories have been rebuilt, and new ones on a larger scale will soon be completed, the old mines are worked, and everywhere in the mining region new shafts are being sunk. Failure from seasons and defective labor have but served to stimulate the farmer and planter to greater exertions. There has been no whining, no gloom, no prostration. The people see that they made a great mistake, and instead of merely deploring the past, they are determined to make the best of the future. It is an exhibition of elasticity under misfortune which can be presented only by the Anglo-Saxon race.

Climate, geological formation, and products, naturally divide the State into northeastern, northwestern, middle, southeastern, and southwestern Georgia. Each section differs materially from the other. In fact, it would be difficult to point out another country of equal extent in which so great a variety of soil, climate, and products can be found as in the State of Georgia. In one extreme are produced oranges, lemons, bananas, olives, and other tropical fruits; the other yields all the products of the Northern States. One cause of this variety is the different elevation of the several sections. The town of Marietta, in Cobb County, about 300 miles distant by railroad from the coast, is twelve hundred feet above the level of the ocean, the country descending from it north, west, and south. There is scarcely a plant of value to man, except coffee, which can not be grown successfully in Georgia. There is not a metal of material use in the arts, except tin and platinum, which is not found in workable quantity in this State. It therefore contains within itself all the essential elements of independence in a remarkable degree, is capable of producing all the requisite articles of food and clothing, and most of the luxuries for a very large population, and possesses abundant water-power to run all necessary machinery. With sufficient capital and population, and with a proper division of labor, nothing need be brought from abroad but coffee, while the cotton, rice, lumber, and mineral products would give it a large export trade.

Northeastern Georgia is primitive in its formation, limestone being found only in a few scattered localities. This section is strictly mountainous, some of the mountain peaks being of great elevation. The summer climate is delightful in temperature, and perfectly healthy. The scenery well repays the attention of the tourist, as in no part of the United States is it finer. The creek and river lands are rich, producing fine crops of grass and grain, while the uplands are generally rolling and comparatively thin. The markets for this section are Athens and Atlanta. No railroads pass through it, though several are in contemplation and will be built. The farms are generally small, and the lands cheap. Northeastern Georgia has felt the effects of the war less than any other portion of the State.

Northwestern Georgia, touching both Tennessee and Alabama, is one of the most admirable portions of the United States. It is a blue limestone region, bounded by the Chattahoochee River on the south, the primitive mountains on the east, and Lookout Mountain on the west, touching the Tennessee River on the north. It is the connecting link between the Great West and the Atlantic. The Etowah, Coosawattee, Connasauga, Chickamauga, Oostanaula, Chattanooga, and Coosa pass through it. The Coosa is navigable from Rome to the falls above Wetumpka, in Alabama. The attention of capitalists is being turned to these obstructions, and when they are removed, which must ere long be the case, navigation will be uninterrupted from Rome to Selma, and Mobile. The Oostanaula is navigable from Rome to Calhoun for small steamboats. The head-waters of this river can be connected by a canal with the Tennessee River, and a glance at the map will show the national importance of this grand work of internal improvement. The want of this canal, and these obstructions on the Coosa are all that now prevent water communication between East Tennessee and Mobile, and the three States are deeply interested in opening this communication with the least possible delay.

The great railroad trunk, the Western and Atlantic road, built by the State, passes through the heart of this section from Chattanooga to Atlanta. Besides this the Dalton and Selma Railroad will soon be completed. A short railroad connects Rome with the Western and Atlantic road at Kingston. The products of northwestern Georgia can be transported by direct lines of railroad to Charleston, Savannah, and Mobile toward the south, and Nashville and Knoxville toward the north.

Before the war, there were several flourishing towns, but Cassville, formerly having a population of two to three thousand, was burned during the war, not a house being left standing. Marietta was greatly injured. Rome escaped with comparatively little loss, and has regained its former prosperity. This place (Rome), situated at the confluence of the Etowah and Oostanaula rivers, and remarkable for the beauty of its situation, must, from its connections and the great fertility of the surrounding country, become a town of considerable importance.

The river and valley lands of northwestern Georgia are very fertile, and comparatively fresh, as the Indians were removed in 1839. The valleys vary in width, from one-fourth of a mile to two miles. In 1860, these river and valley lands readily commanded from ten to seventy-five dollars per acre; now they can be bought much cheaper, as this section suffered more from the war than any other portion of Georgia. Wheat yields from seven to thirty bushels per acre, and is usually sowed on stock land, without plowing. The ground is not manured, except in rare

instances, and then on small lots. A large amount of wheat was annually shipped from this section to New York, where it commanded the highest prices, not only from its excellence, but from its being so much in advance of the Northern crops. Corn ranges from twenty to fifty bushels per acre, the land being broken up with a one-horse plow, and not manured. With manure and deep plowing, as much corn per acre can be made in this section as from any similar lands in the United States. Clover and the grape grow well. On the Etowah River, and in those valleys in which the soil contains sand, cotton yields as much per acre as in any part of the State.

The climate is agreeable, being bracing in winter, and cool in summer, though not so cool as in the mountainous portion of northeastern Georgia. It is perfectly healthy, except in the vicinity of sluggish creeks, where there is a liability to chills and fever. The water-power is abundant, and is frequently found on the line of the railroads. Bituminous coal of excellent quality is extracted near the Tennessee line, and iron ore, lime, cement, slate, and white marble abound. But of these more will be said hereafter.

The writer is familiar with the Middle and Northern States, and has traveled extensively in Europe, and does not hesitate to say that he has not seen a section of country in which Providence has heaped together so large a number of things desirable for the comfort and prosperity of man, as in northwestern Georgia. Reference is made to natural advantages, as soil, climate, variety of products, and access to markets, with the qualifications of discomfort which must necessarily exist in a new country. Middle Georgia extends north and south from the Chattahoochee River to the flat pine woods which reach from the coast about one hundred miles inland. There are no mountain ranges, the surface being gently and pleasantly undulating. Large portions of this section were originally very rich, being covered with wild pea-vines and nutritious grapes; but they have been scourged by bad cultivation, and are worn and gullied to a deplorable degree. The average product, without manure, is now about 500 pounds of seed-cotton, seven to ten bushels of corn, and five to seven bushels of wheat per acre. Manure acts well upon them, and it is easier to restore an acre of these lands to their original fertility than to clear an acre of new ground.

Before the war, lands in middle Georgia averaged, perhaps, ten dollars per acre, but they would not now command half of that price. A large amount of these lands will be left this year uncultivated, from the impossibility of obtaining reliable labor. Most of middle Georgia is quite healthy, the winters being mild, and the summers warm, though not so hot as to interfere with white labor, which can be used to advantage. The climate is incomparably

better, winter and summer, than that of the Northwestern States, toward which the stream of emigration is so largely turned.

The principal rivers are the Savannah and its tributaries, the Oconee, Ockmulgee, Flint, and Chattahoochee. The Savannah is navigable to Augusta. The rivers are bordered with bottom lands of great fertility, covered with the most valuable kinds of timber; but these are generally liable to overflow, and have not been reclaimed, though protection against overflow is perfectly practicable. These bottom lands are sometimes four or five miles wide, with a soil of great depth, and there are probably more acres of rich unreclaimed swamp-lands in middle and southern Georgia than the whole of the kingdom of Holland. They require capital and labor, but when reclaimed, will yield more than a bale of cotton to the acre, or may be converted into beautiful meadows of herdsgrass or timothy. This description of land would probably not now command more than one dollar per acre. The rivers are navigable during the winter by small steamers, and during all the summer, timber can be floated to the coast. In consequence of the increasing scarcity of mahogany, European attention has already been turned to these lands as a source of supply of white-oak, ash, gum, walnut, &c., to be used for furniture, and one Belgian company has now an agent procuring these kinds of wood. The timber on this vast extent of bottom land would more than pay the purchase, drainage, embankment, and clearing, and leave the purchaser a princely farm without cost.

The principal towns of middle Georgia are Augusta, Atlanta, Macon, Columbus, and Athens. All of the towns of Georgia have, to a great degree, recovered from the effects of the war, and business is active, and rents high. City property suffered comparatively little, except in Atlanta, which was almost entirely destroyed. The rapidity with which this city has been rebuilt is almost magical; two years ago it was literally a heap of ruins, now scarcely the scars of the war are left. Both its business and population (now 20,000) are greater than before.

There are four male colleges and a large number of female collegiate institutions in middle Georgia, and most of them have able faculties and are in a prosperous condition.

This part of Georgia is a network of railroads, of which there are upward of 1,400 miles in the State, Atlanta being the great center. There are now four lines of railroads from Atlanta, and two others in process of construction; three from Augusta, Macon, and Columbus, and two from Savannah. The road from Macon to Brunswick, soon to be completed, must be the great thoroughfare by which the trade of Chicago will find its way to the South American markets.

Southeastern Georgia comprises the flat pine region, and the rice and sea-islands on the coast. The pine land is very poor,

and is valuable only for range and timber. The rice and sea-island lands were, before the war, extremely valuable, but have since depreciated greatly, as they can be worked only by negroes. These lands, especially the rice lands, are too sickly to be the permanent home of the white man, and the farmers formerly spent their summers in traveling, or on occasional healthy spots in the pine woods, within reach of their plantations. They can be converted into meadows of the finest quality, and will yield heavy crops of clover, timothy, lucerne, and herdsgrass. The West India market is near, and the product of an acre of good hay will sell for more money, after deducting expenses, than that of an acre of rice. The grasses require no labor after sowing, until after hay harvest, and the whole crop can be saved before the sickly season commences. This work could be done by white men. These lands are as rich as the delta of the Nile.

Savannah is the chief seaport of the State. Business in that city is very active, and property has advanced in price. The voting population is considerably larger than before the war. Brunswick, perhaps, now offers the most promising results to enterprise of any southern town. Its harbor is one of the finest on the Atlantic coast, and the railroad from Macon, the early completion of which is now secure, must give it much importance. The lumber trade alone would make it a city of considerable size.

Southwestern Georgia is in the tertiary formation, resting on what is called the bottom limestone. This is the great cotton region of the State, and, perhaps, the best in the whole South. The product per acre is not equal to that of the bottom lands of the Southwest; but the crop is so certain, the climate so suited to the cotton plants, the soil so easily cultivated, the liability to diseases of the plant is so small, and its products can so readily be sent to market, that it may be safely said to be the best cotton region of the whole South. Some of the planting interests are very large; one gentleman, during the war, is said to have cultivated twelve thousand acres in corn, cotton being prohibited.

Southwestern Georgia is comparatively a new country, and was but recently the home of the Creek Indian. The great value of the land secured at once a dense population, and towns and railroads were built, and an immense extent of land opened for cultivation. Besides being fresh, the land is quite level, and is easily worked, the usual allowance for cultivation being sixty acres in cotton and corn to the hand. So entirely has this region been devoted to cotton, that but little attention has been given to grain; corn, however makes a good return, and the occasional experiments with wheat have been satisfactory as to quantity and quality. It is certain that the farther south we go, where wheat will grow, the heavier is the grain, and sixty-four pounds to the bushel

is not an unusual weight for wheat in lower Georgia. It is cut early in May. Sugar-cane (not sorghum) grows well, each planter usually making his own sirup and sugar. A really thrifty farmer in southwestern Georgia need buy very little to eat or wear, as he can raise his own meat, corn, wheat, cotton, wool, sugar, sweet potatoes, rice, and tea, besides every variety of vegetables grown at the North.

Prior to 1861, good plantations commanded $20 to $30 per acre, but it is doubtful whether the average would now be higher than $5 per acre.

Some portions of southwestern Georgia are healthful, while others are quite malarious, and white men especially are liable to disease. The water is generally bad, and in the sickly portions white labor of *unacclimated* persons during the summer would not be safe.

The rivers are the Flint, navigable to Albany, and the Chattahoochee, navigable to Columbus. Three railroads pass through this region, connecting it with the Gulf, the ocean, and middle Georgia. Columbus is a growing city, of 10,000 inhabitants, with an immense water-power, but partially in use. It is estimated that the water-power of Columbus is much greater than that at Lowell. Albany, Americus, and Cuthbert, are thriving towns.

After this general survey of the State, the following particulars will be of interest:—

AGRICULTURE.—The agriculture of Georgia has been in some respects bad as it could be. There has been no deficiency in intelligence, but it has been wrongly directed; nor of energy, for the Georgia cotton planter, as a general rule, was among the most energetic of men; nor of income, so far as immediate returns were concerned; but there was a great deficiency as to comfort and the permanent prosperity both of the planter and the State. Land was hardly regarded as capital, to be increased, but rather as part of current expenses, and the negro was the capital. But the land was something to be used until it was worn out, then sold for a trifle, and abandoned, and the former owner moved to new lands in the west, there to repeat the same process. The course of cultivation has been generally cotton and corn until the land refused to bring remunerative returns of either, when it was *rested* with small grain. In a rolling country, of which sand forms a large constituent, and therefore very liable to wash, the life of the soil was very brief, and a few years of this cultivation rendered it useless, and it was then turned out to be grown up with briars, broom-sedge, and old field pines. Two-horse plows were rarely used, and manure was seldom applied to any crop, except cotton-seed, on corn and wheat. Hancock County and some of the adjacent counties should be an exception to the above general remarks. There a course of improvement had commenced, in the advance

of which was Mr. David Dickson, of Sparta, who planted nine hundred acres in cotton and eight hundred in corn, besides small grains, the whole of the 1,700 acres being manured, the corn with cotton-seed and the cotton with guano, at an annual cost of $10,000. This gentleman made money in the right way, his crops were heavy, and his land was improved both in condition and salable value. Throughout the State there were similar isolated examples. The remarks made on the system of agriculture in Georgia are of general and not universal application.

We may thank God that our generous mother-earth, oblivious of the wrongs done her by her children, will richly repay every filial effort. The losses of the planters have been terrible, but with a climate so genial, a soil so improvable and yielding products so valuable, it will be their fault if, under a new organization of labor, and a new system of agriculture, they do not attain more than their former prosperity.

THE FREEDMEN.—In many respects the conduct of this race of people, since the war commenced to the present time, has been most remarkable. Their behavior during the war was admirable. The wives and children of the confederate soldiers were at their mercy; they knew perfectly well that their freedom would be the result of the success of the Federal arms; no white men were left at home, out of the cities, but infirm men and exempts, neither of whom were to be feared, yet never were the plantations more faithfully worked, never were the negroes more industrious or more deferential to their mistresses and the children of their masters. The South owes them a debt of gratitude, and all reflecting and good men acknowledge it, and will pay it if left free to act.

After the abolition of slavery it was feared that the negroes, intoxicated with their new found liberty, would rush into excess and riot. The fear was unfounded, and with few exceptions, they have been quiet and respectful; but their freedom has developed the inherent defects of the race,—indolence, and want of thought for the morrow. Hence, in many parts of the State, they are unwilling to make contracts for farming labor, to be paid at the end of the year, in kind or in money, their food being provided. They are more willing to work when they can be paid by the week or month, as they thus obtain ready money. This difficulty in making contracts occurs to the greatest extent on the sea-coast. In one instance, on a rice plantation, on which 1,000 acres of rice was planted last year, fifty acres were cultivated, and when the rice was ready for harvest every negro left the place, the rice was not harvested, and both the planter and the negroes lost the entire crop. For that very large interest the owner this year has been able to contract for but twenty hands. In many other instances, they are unwilling to contract to labor for more than two [redacted] in the week. In very many cases planters have failed to

obtain any hands at all, and thus large plantations are left wholly uncultivated.

This kind of labor, defective as it is, is rapidly diminishing in Georgia; comparatively few negro infants will be hereafter raised. Infanticide was often prevented on large plantations with extreme difficulty by the most vigilant care of the mistress. Now, relieved from the control, and unwilling to be burdened with the expense and care of children, when they can hardly support themselves, this crime has become more frequent. Thousands, both of children and adults, have died from disease and exposure, it being their delight to collect about the towns and cities, where they contract vices and diseases; besides, every railroad train during this winter, has been loaded with negroes going to the West, under promise of increased wages, and the unfortunate people have, in many cases, been made the subjects of infamous speculation. It is estimated that 25,000 negroes have left South Carolina this winter for Florida and the West, and the number which have left Georgia is much greater, as, for some time, the average number passing through Atlanta has been 1,000 daily. This depletion of labor still actively continues, and it is a matter of increasing importance to the planters. They offer ten to twelve dollars per month, besides food, house, firewood, and land for a garden, but the negroes are promised more in the West, and accordingly emigrate. There must be a cessation of this emigration, and an increased disposition on the part of the negroes to labor for reasonable prices, or the introduction of new and reliable labor must follow. If neither of these alternatives occur, a very large proportion of the best cotton and rice lands in the older cotton States must be wholly unproductive.

Cotton.—The cotton crop of Georgia in 1860, was 701,840 bales; that of 1866, is estimated at 200,000 bales, a decrease of 501,840 bales. A considerable portion of this decrease is owing to an unpropitious season, but much more to the diminished quantity of land planted, and the defective labor employed in its cultivation. Large cotton plantations will cease to exist in Georgia, except in rare instances. During the last year, in a few cases, large planters have made a little money over expenses. In most cases, however, there has been a positive and heavy loss. As an illustration, one of our most skillful planters borrowed $40,000 to enable him to conduct his two plantations—one of rice, the other of cotton. His whole crop sold for $20,000, a loss of $20,000 on the year's work.

The experiment of conducting large rice and cotton plantations *with the present system of labor* has proved a failure, and few planters will again venture the experiment.

A plantation working 100 hands, and 60 to 70 mules, requires a very large outlay in advance, and such is the insecurity of labor, so little do the negroes observe the obligations of contracts, that

after all his outlay in the way of mules, tools, provisions, &c., the planter may be left in the midst of the crop without a hand to work it. Under the most favorable circumstances the cotton crop of Georgia the coming year must be very small. The decrease of hands (between 12 and 65 years of age) employed since 1863, has been 139,988. Is cotton, then, to cease to be a staple crop of Georgia? Certainly not. It must, however, be greatly diminished for a term of years, until the system of cultivation is improved, and a more reliable form of labor introduced.

Having experienced its value, the human race can not dispense with the cotton plant. The writer quotes from an address delivered by himself some years since:—"In the variety of its uses, in its employment of multiform labor, in its general economical relations to the State, in its capacity for the support of a dense population, this plant is certainly, of its kind, the most bountiful boon of a kind Providence."

In despite of the gloomy present, cotton must be made, but for a term of years, at least, on small farms and with a mixed husbandry. One idea is as hurtful to the soil as the brain.

It is true that cotton is the least exhausting of all plowed or hoed crops. How can it be otherwise when every thing is returned to the soil except the mere lint and cotton? The leaves and stalks are of course returned. The source of nutriment of the plants is largely atmospheric. The seeds are an excellent manure for wheat, and corn after cotton thrives remarkably, almost as if it were directly manured. There is not a cotton-seed oil mill in Georgia, but the seed in its crude state is heaped up for manure, while a portion of it is sent to England and to the North to be manufactured into an oil equal to olive for the table, and admirable for lubrication in its clarified state, and the manure of animals fed from the oil-cake is superior, according to English experiments, to that of animals fed even upon our Indian corn, which ranks next in value. In a rolling country with a decided element of sand in its composition, land cultivated in cotton and corn for a succession of years will wash and become exhausted and gullied. But this is the fault of the farmer, and not of the plant; any hoed or plowed crops, steadily repeated, would produce the same results.

Two-thirds of the strictly cotton lands of Georgia can be cultivated by white labor. In some sections it might be necessary to be careful about working in the midday's summer sun. But what is this loss compared with the loss of a winter, when the soil is covered with snow or locked up with ice? Nothing in Georgia interferes with agricultural labor in winter but rain, of which it has no unusual share as compared with other portions of the United States.

The rainy days of winter are scarcely sufficient to get every

thing ready in the way of fencing, mending, &c., for spring. By manure and deep plowing, an acre of these uplands in Hancock County, worth, according to average value, five dollars in 1860, has been made to produce 3,000 pounds of seed cotton, or 1,000 pounds of clean cotton, at present prices worth three hundred dollars. Any tolerable hand can cultivate ten acres, equal, according to the above product, to three thousand dollars. This is an extreme result, both of prices and products, but is now within reach of the skillful and industrious laborer.

In the older and healthier portions of the cotton region of Georgia a farm of one to two hundred acres can be bought now at from one to five dollars per acre, including comfortable improvements—a price, perhaps, not one-tenth of the original cost of fences and buildings. Suppose a laboring man, with money enough to buy such a farm, and also with money enough to buy guano or superphosphate of lime sufficient to manure ten acres for cotton, say a capital of twelve to fifteen hundred dollars. This ten acres he can easily cultivate, besides raising his own meat, corn, wheat, &c.; when the cotton is matured, his wife and children can pick it for him. He is at no expense but his own labor, and that of his own family. By degrees, as his means increase, and as he can procure reliable labor, his operations are increased, with nearly equal profits. Is there any other mode of farming in which he can earn so much?

We must have white labor, and there are three ways by which its attainment is possible. First, to try foreign immigration. The expenses of the immigrants, for the present at least, must be prepaid. Where is the money to come from? The planters can not advance sufficient money to secure household wants from abroad.

Northern companies may buy up large bodies of land, divide them into small lots, and either sell or rent to tenants—an investment, at present prices of land, of the most profitable nature, but requiring heavy capital.

Georgia land-owners may divide their own tracts, and put up cabins and lease for a term of years, say from ten to twenty, with a stipulation as to rotation of crops and manure, according to the English practice. If a planter is willing to sell his land for ten dollars per acre, he can afford to lease at one dollar per acre, annual rent, which would be ten per cent. on the price of his land. The latter would be the best arrangement for him, if practicable. The second, as soon as public affairs are settled, will probably be the most feasible. But in either event we must go back (possibly forward) from large farms to small; our present labor demands this. Afterward, under a new system of labor, there may be a return to large plantations, with increased results.

GRAIN.—The product of corn in Georgia is in proportion to the

labor bestowed upon it. The highest known yield of corn was that produced by Dr. Parker, of Columbia, South Carolina, who made two hundred and twelve bushels and some quarts from an acre of land. The ground from which this immense return was received was scarcely an average sample of the soils in South Carolina and Georgia. It shows what is possible in our climate, under high culture. The danger to the crops is from drought, the effects of which can be measurably obviated by deep plowing, early planting, and early varieties of seed. Fair crops even last year were made by those persons who planted early and used Northern seed corn. The present product ranges from seven to fifty or sixty bushels per acre, according to soil, seasons, and culture. With the cultivation and manuring common to good farmers at the North, an average of fifty bushels of corn to the acre can be produced one year with another. Heretofore the land has been rarely manured. The ground is broken generally with a one-horse coulter-plow (both plow and stock generally made on the farm), to an average depth of three to four inches. Is it a wonder that lands so treated should suffer from drought, and produce small crops? The pea crop planted in between the rows of corn, it is estimated, will, of a fair year, cover the expense of cultivation of both crops.

Wheat is usually sowed on stalk land after the corn is gathered, and without previous plowing. Almost the only manure applied to this crop is cotton-seed, and this is done in comparatively rare instances, but always with beneficial effects. The only instance in the State, in the knowledge of the writer, in which wheat was sowed on an inverted clover sod, was in Barton County. The yield was forty bushels to the acre. In another instance, in Hancock County, in middle Georgia, wheat sowed on a well turned Bermuda grass sod produced thirty bushels to the acre. The chief casualties to which wheat is subject are smut and rust. The former can be effectually prevented by soaking the seed in a solution of bluestone; the latter, to a good degree, by sowing early varieties of bearded wheat, as it is only late wheat which is effected by rust. Good bottom land in middle and upper Georgia has frequently produced twenty to thirty bushels to the acre. But at present, from imperfect culture, the absence of manure, and the prominence given to cotton, the average yield is very small, not more than six or seven bushels per acre. The earliness at which the wheat crops mature in Georgia always secures the best prices. New flour can be shipped from this State some time before the Northern wheat harvest begins.

The Grasses.—On all lands in Georgia, with a good dry subsoil, clover will grow well, if the soil be naturally or artificially rich enough. In northwestern Georgia, on fresh land, clover does admirably. In middle and lower Georgia a heavy manuring is generally

necessary, the cost of which may be repaid by its application to wheat with which the clover is sowed. It must be lightly grazed during the heat of summer, but grazing may be commenced in April, interrupted in July and August, and resumed in September, continuing until January. The stubble-fields will carry the stock well during the interruption. Herdsgrass and timothy thrive well on rich bottom lands of a close texture throughout the State. The most valuable of all forage plants is lucerne. This grows as well in Georgia as in France, and in the quantity and quality of the hay produced is unrivaled. On lands made very rich it may be cut five times during the summer, yielding a ton at each cutting, commencing in April. The price of hay in Georgia is never less than twenty dollars per ton; now it is more than twice that amount.

On manured uplands, blue-grass, meadow, oat-grass, orchard grass, vernal grass, grow during the winter. If these are kept shut up from June until December, and stock is then turned upon them, horses, mules, cattle, and sheep will need no other food, and will keep fat. They thus do their own mowing and hay raising. What a diminution of expense in stock-raising. What a saving in costly barns. What a singular advantage of climate.

If it will pay to manure a meadow on which the expense of cutting and curing hay is to be incurred, and also of barn to store it in, much more will it pay to manure land for winter pasture, on which an equal amount of stock is kept, without after expense. When land is made rich and sowed down to winter grass, it is quite possible to raise good cattle, colts, and sheep, without any other expense than interest on land, salt, and occasional attention. If these winter pastures are laid down in thinned woodland, the additional advantage is derived of doing away with dead capital in woodland, besides feeding a number of hogs, as the acorn and chestnut rarely fail in thinned and pastured woodlands. Bermuda grass will be spoken of in connection with sheep-raising.

Fruit.—The peach-tree in Georgia is long-lived and subject to very few diseases, and the fruit is largely used in fattening hogs. Shipping early peaches to the Northern markets must become an important business near the lines of railroads on the coast.

It is to be regretted that the experiments in vineyards have not been more successful. These experiments were extensive, spirited, and expensive, but they have generally been abandoned. The Catawba has been almost exclusively used, and possibly some other grape may be found better suited to the soil and climate.

It was at one time supposed that good winter apples and pears could not be grown in Georgia, but since attention has been paid to native seedlings, fine and good keeping varieties of the fruits have been raised. The writer has seen together upon the table, pears and apples of different year's growth. It is a surprising result,

that the best region for producing good winter apples is the poor and sandy belt just above the fall of the rivers in middle Georgia, a section so poor that, in the vernacular, it "will not sprout peas."

The fruit business in melons, apples, pears, peaches, and market vegetables in Georgia, offers an inviting field for enterprise. Atlanta being the railroad center, and therefore most distant in point of time from New York by the two diverging lines, is fifty-six hours distant from that city. The freight on a bale of cotton from Atlanta to New York is seven dollars per bale, a fraction over one cent per pound. Both freight and time are small, but the difference in season and price, according to season, is great. Let the market gardeners, who understand the importance of extra early fruits and vegetables, consider well the suggestion.

LIVE STOCK.—In 1860 there were in Georgia 130,771 horses, and 101,069 asses and mules. The number was greatly diminished by the war. If there was any money in Georgia to pay for them they would rule high. Prices, except in the cities, are almost nominal. Great attention was formerly bestowed upon blooded horses for the saddle and turf. Of late years the Morgan horse has been introduced, and found great favor as a horse "of all work." It must be many years before the stock of fine horses is replaced. Mules for the plow are in chief demand, and are mostly brought from the West, although, with a proper attention to winter grass pastures, a mule can be raised at less expense in Georgia than in Kentucky. In southern and southwestern Georgia all that is necessary is to inclose a cane-brake, the young mule desiring no better food during the winter, and the range feeding him in summer.

In 1860 there were in Georgia 299,688 milch cows, 74,487 oxen, and 631,707 other cattle—in all, 1,005,882. This was a large proportion to the 99,000 white polls in the State, being somewhat more than ten to the poll. The Durham, Devon, Ayrshire, and Bremen cattle have all been introduced. The pure Durham are too large for our climate and pastures; the others thrive as well as elsewhere under similar treatment.

In lower Georgia, in what is called the wire-grass region, cattle are raised largely, herds ranging from 100 to 5,000. These are neither fed nor even salted, no care being bestowed except marking and occasional penning.

With all the facilities for cattle-raising in Georgia, there is not a dairy farm in the State, except some small milch dairies near the cities. All the butter and cheese bought is from the North. There was one cheese dairy in the full tide of successful experiment, which was terminated by the death of the adventurous experimenter; yet the manufacture of a pound of butter or cheese does not cost more than one-half as much in Georgia as in Ohio or New York. In 1860 the butter crop of New York sold for

twice as much as the cotton crop of Georgia, although that year the latter was more than 700,000 bales.

There were in Georgia, in 1860, 2,036,116 hogs, within a small fraction of as many as there were in Kentucky, and about four times as many as there were sheep in the State, yet the one requires grain, and the other does not. The one requires labor, and the other lives in the range. There were 33,512,867 hogs in the United States; about one-fifteenth of the whole number were raised in Georgia. According to the present system, which does not include grazing upon clover and grass, the hog is the most costly and least profitable stock raised in the State.

The census returns for 1860 show 512,618 sheep in Georgia. Of this number, 25,432 were killed by dogs in 1866, yet the number of sheep is but little diminished since 1860.

Really good sheep, properly cared for and protected, are the most profitable stock which can be raised in Georgia. Under the ordinary system they are the least profitable, except in those portions of the State in which wool-growing is a business.

The three different belts in Georgia require, in each, a different system of sheep-raising. In northwestern Georgia the summer and fall range is ample. Wethers will live in the range all winter, but ewes and lambs require food for two or three months. The winter grasses, if sown, are amply sufficient for them, and rye pasture also answers well.

In middle Georgia, Bermuda grass makes the best pasture. Probably no grass in the world gives an equal amount of grazing, winter and summer, as the Bermuda on good land, and if shut up during the summer, it will keep sheep and cattle fat during the winter. It is the dread of the cotton-planter, however, from the rapidity with which it spreads, and the difficulty of extirpating it, and there are entire plantations in middle Georgia overrun with it. These have been abandoned by the cotton-planters, and can be bought as low as one dollar per acre in some cases. Many of these plantations have comfortable dwellings and outbuildings upon them, are healthy, and within easy reach of railroads. On land well manured or otherwise rich, Bermuda grass grows tall enough to mow, and makes an abundant and nutritious hay.

Sheep-raising is conducted on quite a large scale in southern Georgia, in the pine woods range. The flocks, in some instances, reach as high as 5,000 head. These sheep are never fed, summer or winter, living entirely in the range. They receive no attention except at marking and shearing times. Sheep can be bought at $1.50 per head. They are very inferior, but can be rapidly improved by a cross with the Merino.

It will be seen that Georgia affords great facilities for wool growing. In a large portion of the State, sheep require no housing or feeding, and there are no "northers," as in Texas.

The market for wool and mutton is within easy reach. Why, then, should the wool-growers seek the West? With the subject of wool-growing the writer is familiar, from practice and observation at home and abroad. It is his conviction that, considering the climate, price of land, markets, and facilities for summer and winter grazing, middle and lower Georgia afford a prospect of more rapid fortune in wool-growing than any other region within his knowledge. Cotton has heretofore blinded the eyes of planters to the value of their lands for this purpose. There is no reason why the wool crop of Georgia should not be larger than its cotton crop ever was.

METALS AND MINERALS.—It was the design of the writer to treat fully upon this branch of the subject, but the limits assigned him render this impossible, and it must be dismissed with a few general remarks. The white marble quarries of Cherokee County are of great extent, a portion of them affording statuary marble. The slate quarries of Polk County are now attracting much attention. The slate is considered equal to the Welsh, and is now being shipped to New York. The quarry is of enormous extent. Hydraulic cement, nearly white in color, and of excellent quality, is made near Kingston, Bartow County. The indications of petroleum in Floyd County are strong. That section has been thrown up in the wildest confusion. The formation is the lower silurian, abounding in fossils, and both the limestone and shale are highly bituminous. Iron ore abounds in Bartow and other counties. Large investments of Northern capital are now being made in digging gold, and with fine results. If these mines were on the other side of the Rocky Mountains; if there were hostile Indians between them and civilization; if it were necessary to transport provisions and tools on pack mules, there would probably be a great rush of adventurers to them. But they are in the "white settlements," fifty-six hours distant from New York, and are, therefore, not considered worthy of attention.

HOW NORTHERN MEN ARE TREATED.—This depends very much upon themselves; rude people will find rude people everywhere, as like begets like. There are two classes of Northern men who can not expect to be received with much courtesy. One is the class of correspondents of Northern newspapers, who pass through the South misrepresenting the condition of things, thereby keeping open the wounds of our suffering country. The other is a class of men who provoke ill-treatment by irritating and insulting remarks; but a Northern man who comes here to live, and minds his own business, and identifies himself with the interests of the section which he has selected as his home, will be met and treated in his business relations with as much courtesy as any other good citizen. It is, however, proper to remark that families of refinement settling among us alone, would hardly find their residence

pleasant, however profitable it might be. They would not be disturbed, but they would be let alone. This is to be expected. We have passed though a terrible war. The superior numbers and resources of the North have overpowered us. It is human nature to be sore under such a result. It will be a work of time, the great healer, to remove this soreness. Our women, perhaps, feel this result more heavily than the men. While they would be guilty of no rudeness, for which they are generally too well bred, they would be averse, for the present, at least, to intimate social relations with those who have been indirectly connected with the sufferings which they have endured. These sufferings have, in countless instances, been terrible beyond expression. Every Northern person of delicate sensibilities will readily understand and appreciate the condition of things referred to. It is due to them to express frankly the real state of facts, to prevent a repetition of instances in which Northern ladies have suffered keenly from a sense of isolation.

From the Report of the Agricultural Department, February, 1868:—

Real Estate.—Returns to our circulars from about fifty counties of this State show an average decline of from fifty to sixty per cent. in the value of farm lands, as compared with the estimates under the census of 1860. No county reports an actual increase; but Union, Fulton, and Charlton show no change in value since the date named. A few counties report a very large decline—from eighty to ninety per cent., but the major portion range from forty to sixty per cent. The depreciation of these lands is of course attributable to the same causes which have similarly affected all the Southern States, and the estimated values are but nominal, sales being few at any price, except when forced.

In 1860, the lands classed under the head of wild or unimproved lands embraced about one-fourth the area of the whole State, the figures of that time being: improved lands in farms, 8,062,758 acres; unimproved, in farms, 18,587,732 acres; wild or waste areas (including waters, &c.), not in farms, 10,461,510 acres. It is probable that the proportion of cultivated lands is smaller now than in 1860; and the estimated values given by our correspondents range from twenty-five cents to fifteen dollars per acre, according to location and resources. In Union, Murray, Chattooga, Gordon, Polk, Campbell, Cherokee, Jefferson, Johnson, Greene, Morgan, Carroll, Heard, Taylor, Charlton, Schley, and Church, embracing all the range of temperature and varieties of soil in the State, these wild lands may be purchased at from twenty-five cents to one dollar per acre; while in Floyd, Cobb, Milton, For-

syth, Columbia, Warren, Hancock, Newton, Butler, Houston, Crawford, Stewart, and other counties, the average value ranges from one dollar and seventy-five cents to five dollars, generally averaging something over two dollars. In fact, throughout the State, in every county, such lands are to be found at merely nominal figures, and of such variety and extent as to supply any character of soil that may be desired. In many sections these lands are mountainous, and covered with a heavy growth of timber, and the soil, when cleared and cultivated, capable of yielding good crops of corn, the small grains, potatoes, &c., and are well adapted to fruit-growing; while in others, the lands are flat and swampy, of little value but for the timber; but the larger proportion comprise lands susceptible of high cultivation, and capable of growing remunerative crops.

CORRESPONDENCE.

A correspondent writing from Macon, Aug. 6, 1868, says:—

Yours of the 28th ultimo is received. We have every kind and character of soil and climate in Georgia that the emigrant may desire. Northern, mountainous; middle, undulating; southern, very level. The middle is the finest climate in the world, neither extremes of heat or cold. Northern, exclusively a grain country—too cold for cotton, and crops uncertain. Middle is good for average crops of grain or cotton. Southern is good for cotton, rice, and cane. Southwestern Georgia is the best for cotton in the State, and none better in the whole South. The writer is a large planter in southwestern Georgia, and before the war, made five bales of cotton to the hand, besides supplies of corn, sirup, potatoes, peas, hogs, &c. This year, cotton bids fair to yield as well, with free labor. Near my place there lived a *poor white man* who always made, by his own labor, six bales of cotton, besides what is enumerated above, and some to sell above his own wants. This shows you what the emigrant can do; and, to the man of capital, with good laborers, a fortune could soon be realized. Wild lands, heavily timbered with pine, can be purchased for from $1 to $2.50 per acre; grain farms, from $5 to $50 per acre; cotton farms, or plantations, from $3 to $10 per acre, according to improvements and location. Living is as cheap here (except bacon) as in any part of the States. Wages, from $5 to $12 per month. Able-bodied hands of *white skin* are in great demand.

To the emigrant or the man of capital, who desires to settle here, our people will give a good old Georgia welcome, and insure him protection at the risk of our lives; but the "carpet-bagger,"

who comes to control the elections through the votes of ignorant negroes, we "heartily despise," and hope he may come to grief as soon as possible. We claim to be a law-abiding people, and all the trouble you hear of in the South, occurs among the ignorant negroes and *ditto* whites. This you have to contend with at the North, as much so as we here. There is a fine field open in Georgia for the industrious farmer, or the capitalist, in whatever business he may wish to embark. The cotton factory here has always paid its regular dividends, and its profits will compare favorably with any New England concern. Our railroads have all been rebuilt since the war; now paying good dividends, and stock worth from par to 130. The only persons who have failed to recuperate are the large planters, who have tried to run their large plantations without capital. One of my neighbors, who had plenty of capital, and held his crop for better prices, cleared $10,000 net; working 35 hands.

CLERK'S OFFICE, SUPERIOR COURT.
MARIETTA, GA., *August* 3, 1868.

SIR:—In reply to your circular:—

1st. The lands are generally good farming lands, and range in price from $5 to $20 per acre, according to quality.

2d. Labor demands a good price; supply inadequate since the freedom of the negroes—farm hands and housekeepers.

3d. Climate as good as any place in the United States. And this part of Georgia (North Georgia) is as healthy as any.

4th. Mineral plenty; gold, copper, iron, &c. Land heavily timbered; some coal higher up.

5th. Character of crops—corn, wheat, oats, rye, barley, peas, cotton, potatoes (Irish and sweet), turnips, cabbages, and most any thing else that you wish to plant; fruits of all kinds. Corn is generally from 40 cts. to 60 cts.; but it has been higher since the war—80 cts. to $1 now.

6th. Railroad facilities at our door; market convenient. This place has about 3,000 inhabitants, and is 20 miles from Atlanta, by railroad, which has a population of about 25,000.

7th. School and religious advantages adequate.

8th. Nationality—mostly Georgians; some few Irish; some Germans, and a few English; not a great many negroes in this part of Georgia.

There is a good deal of cotton raised in this part of Georgia; but it is not as good for cotton as the lower and middle parts. We have one large cotton factory in our immediate vicinity; several large flouring mills; a paper mill; a bone mill, and several other manufacturing establishments. I consider this part of Georgia the place to emigrate to, if a man wants good water,

fine climate, and a healthy country to live in; and any man that is industrious, can make money. We want, and invite, immigration. By the devastations of Sherman's army, we are unable, so far as means are concerned, to offer inducements, further than to sell our lands cheap, and give emigrants a hearty welcome. Our water-power is ample for all kinds of machinery.

Yours very truly, &c.,
H. M. HAMMETT,
C. S. C.

F. B. GODDARD, New York.

The following interesting communication is from Hon. JOSHUA HILL, one of the United States Senators elect from the State of Georgia to the Congress of the United States:—

MADISON, GA., *August* 6, 1868.

DEAR SIR: * * I will give you a brief sketch of Madison and vicinity. This pretty town, incorporated as a city, is situated in Morgan County, on the Georgia Railroad, thirteen miles west of the Oconee River, which separates for some miles the counties of Morgan and Greene, below the mouth of the Appalachee, a small river forming the northeastern boundary of Morgan. Madison is 104 miles west of Augusta, and 67 miles east of Atlanta. There are day and night passenger trains every twenty-four hours over this road. It is a great freight road for this country. Madison is the principal cotton depot on the road. It contains about two thousand inhabitants.

* * * * * * * *

The surrounding country was originally a fertile soil, well watered, and abounding in fine freestone springs and wells. The climate is mild, and the atmosphere at this time remarkably free from miasma. Bilious complaints are almost unknown. Forty years ago they prevailed generally. It would be difficult to find a healthier region. The country is undulating, and is supplied with small but never-failing streams. There are still some fine forests, containing a variety of timber, and every farm contains a portion, though some have been left too bare.

These lands, in the days of slavery, fell into the hands of the large planters, and were cruelly abused by a system of bad culture—continuous crops of cotton, with shallow plowing. Since the close of the war there have settled among us a few Northern farmers, bringing with them improved farming implements, particularly the large turning plows. Gradually the Georgians are adopting deep plowing and manuring, both of which have heretofore been sadly neglected. These farms are still cultivated mainly by colored labor, especially the large tracts. There are

many small proprietors who use white or mixed labor, and some who confine their work to the immediate family.

The general crops consist of corn and cotton, wheat, oats, peas, and potatoes (Irish and sweet). These lands grow wheat well when manured and well prepared. Fruits are abundant and good, considering how little care is taken of the trees. We have peaches, apples, plums, cherries, pears, quinces, apricots, grapes, and a great variety of wild fruits.

The value of the best field labor is from seven to nine dollars a month. Ditching is done by the day or job, and is worth more than ordinary labor. Most planters contract with their laborers, giving them a part of the crops produced.

Lands within fifteen miles of the railroad only vary in price according to productiveness. Too little importance is attached to improvements. Barns, stables, and outbuildings, are generally inferior. The average value of these lands may be set down at from five to ten dollars an acre. Some choice places a little higher. The Northern men who have bought lands in this vicinity appear well satisfied with the community. There is no apprehension of violence from any source. We enjoy a state of quiet and peace.

Though this section has suffered from drought, there will probably be an average yield of cotton, and perhaps enough corn made for its consumption. What I have said of Morgan may be said of much of the State bordering the Georgia Railroad.

What is most needed with us is well-skilled labor, with a little capital. Small communities of good agriculturists, men who will properly enrich and prepare land for cultivation, would do well in this great middle belt of Georgia; and their system of cultivation would soon be adopted by the old laborers and proprietors. This is not a mineral region, it is too far from the mountains, in which the metals are deposited.

Others of your correspondents will sketch northern, western, and southern Georgia, with greater accuracy and fidelity than I can pretend to. It is a vast and varied field, that invites the attention of the agriculturist, the manufacturer, miner, mechanic, merchant, and the valetudinarian. As a country to live in, to live well, to live comfortably, to enjoy, summer and winter, uninterrupted health, I know of no spot of earth superior to middle Georgia.

I ought not to omit to state, that experiments in growing clover have been made in this county for the past two years, to a considerable extent, with most satisfactory results. Mr. Reuben Miller, a farmer from Columbia County, New York, Mr. Hermance, and the Messrs. True, all New York farmers, and some others residing in this vicinity, are fully satisfied that it is profitable to grow clover here. They have tried it for two years past.

The cattle and sheep are kept fat during the summer and au-

tumn on the pastures of Bermuda grass, and a new variety of the trifolium which has suddenly spread itself all over this country. Up to December, and often later, it is unnecessary to feed dry cattle or sheep. The Bermuda grass is perennial, and forms good grazing in April, and on good lands it makes fine hay. It is without seed, but grows from the bud, and if neglected, becomes troublesome to the farmer and gardener.

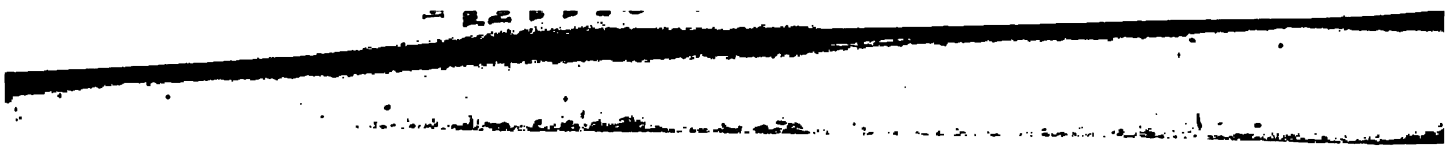
So much, then, for this particular portion of Georgia. Be assured that the picture is not overdrawn. The French mulberry and the morus-multicaulis are found growing in the hedges and fence corners, as if indigenous; and it is the natural abode of the silk-worm.

I might extend this sketch, but I forbear. Immigrants from any clime will find in Georgia a soil and climate to please them, and an intelligent, hospitable people to welcome them to new homes.

I am, very respectully, your obedient servant,

JOSHUA HILL.

FRED'K B. GODDARD, Esq., New York.



FLORIDA.

It was on Easter Sunday, of the year 1512, more than 350 years ago, that a brave and romantic old Spaniard named Ponce de Leon, while hunting for a marvelous fountain whose waters could restore youth and beauty, discovered Florida. It was then thought to be an island, and received its name on account of the flowery beauty of its vegetation and from the day of its discovery.

It is the most southern State in the Union, occupying the position of a vast peninsula between the Atlantic Ocean and the Gulf of Mexico. The State is 385 miles long, with an average width of about 175 miles, and contains 37,931,520 acres.

Surface Characteristics.—Florida is generally a flat country; in the southern portion of the State is an extensive marsh or swamp called the "Everglades," with occasional tracts of firm ground, which, during the rainy season, between June and October, appear like islands in a lake. North of this region the surface is, in the main, a dead level, interspersed with undulating tracts. West of the neck of the peninsula, near the Georgia borders, the surface is more or less broken and hilly, but nowhere attaining considerable elevations.

Lands.—The lands of Florida are classified as high hommock, low hommock, swamp, savanna, and pine land. The soil is generally sandy except in the hommocks, which are a mixture of clay and sand. The high hommock lands are the best. They are mostly covered with a growth of live and other oaks, pine, and magnolia, and vary in extent from a few acres to many thousands. Low hommock is liable to overflow, but is fertile when drained, and well adapted to sugar-cane.

The savannas are the river bottoms and prairie lands.

The pine lands are covered with a heavy growth of pine and cypress.

The central portion of the State is the most productive. Farther west the lands are mostly inferior. The best lands of the State are unavailable for cultivation owing to a lack of drainage, but a large area is well adapted to grazing and stock-raising. Cattle may here be raised with little care and without winter housing. In most parts of the State hogs may be profitably kept. They will grow and fatten without other food than such as they derive from the roots and mast of the forest.

PRODUCTIONS.—The natural and agricultural productions of Florida are of a tropical character;—oranges, lemons, pine-apples, &c., flourish luxuriantly; and all varieties of cotton, sugar-cane, rice, and many crops belonging to higher latitudes, are produced in great abundance.

CLIMATE.—The climate of Florida is warm, but in many parts of the State is so tempered by the sea-breezes as to have given it the reputation of being one of the most delightful and salubrious places of residence upon the face of the earth, especially for invalids who are threatened with pulmonary diseases. In the southern portion of the State the temperature varies but little the year round.

The winters of the Gulf are warmer than upon the Atlantic coast, and the interior of the State, unreached by the sea-breezes, is warmer than either. The average mean temperature of the State is about 73°, and the difference between summer and winter seldom exceeds 25°. The average rain-fall is 33 inches. St. Augustine and other points are much resorted to during the winter by invalids from the Northern States.

Florida has a thousand miles of sea-coast and a number of navigable rivers. She had, in 1860, 401 miles of railroad completed and in full operation. Her population is now about 160,000. This State is a paradise to the hunter and fisherman; deer, wild turkeys, ducks, and geese abound.

A great variety of the finest fish are found along both the eastern and northern coasts, and in the lakes and streams of

the interior; the Florida oysters are especially delicious in flavor.

TALLAHASSEE, the capital, is pleasantly situated on an elevated plain. It is well laid out and built, with public squares; it has a salubrious climate, and is a place of considerable resort.

SAINT AUGUSTINE is the oldest town in the United States. It is built on a plain, but a few feet above the sea; it is a place of great resort for invalids. Other prominent towns are Apalachicola, Pensacola, Key West, Jacksonville, and Fernandina. There are yet to be disposed of in this State about 17,500,000 acres of public land.

A correspondent of the "New York Tribune," a journal known throughout the civilized world as prominent in its devotion to the interests of the cause of emigration, and the welfare of the emigrant, writing from Jacksonville, thus answers some of the many letters he had received making inquiry as to the advantages Florida offers to the intending emigrant. He says:—

For convenience and brevity, I will number the questions, leaving out names and localities, which extend from Maine to Minnesota, showing a wide-spread desire of many people to get into a warmer climate. The visitors in East Florida this winter, represent every Northern and Western State, and a good many of them will return to spend their lives here in cultivating the soil, or in some way improving the country, or else to have a home in this delicious climate.

1. "What are the promises of Florida to Northern settlers?"

Every thing that an industrious man can ask of a wilderness, the soil of which is good, the climate healthy, where he can work more days without being driven in by storms, cold, or heat, than in any other State in America.

2. "Can a young man who is obliged to seek a warmer climate for his health, improve it there?"

Yes, if not too far gone, as half are who come here. Don't come here to die—come to live.

3. "Should persons of moderate means be justified in going from Western New York to Florida, to live an agricultural life?"

Yes; why not? Land is cheap, productive, easily tilled, though millions of acres are yet wilderness, because there never has been a sufficient population here. If you read history you will know why.

4. "What part of the State would be the best for me?"

The part you like best when you see it. In previous letters I have partially described different sections. I prefer the St. Johns region, both on account of climate, productions, and people, and convenience of access.

5. "What are the best articles of produce?"

Oranges are the most profitable. But you must wait five years for the first crop. So you must for a profitable crop of apples, or grapes, in your own State. Orange-trees, full grown, will yield from 1,000 to 10,000 fruit per annum, and as certain as any other crop. No part of the world produces better oranges, lemons, limes, citrons, than East and South Florida. Peaches and figs grow here to perfection. Two hundred bushels of sweet potatoes per acre may be fairly counted upon, or a ton of sugar upon land that you would probably consider barren sand, if you saw it for the first time, when bare of vegetation.

6. "What is the distance, time, and expense from New York to Jacksonville?"

By steamer from New York, to Charleston or Savannah, $15 to $25; time, three days. By rail: leave New York at 7½ P. M., on sleeping-car; wake up at Crisfield at 6 next morning and take the steamer across Chesapeake Bay—eight hours; then, cars from Portsmouth, Va., to Weldon, N. C.—four hours; then, sleeping-car to Wilmington—eight hours; cross the ferry and take cars, and arrive in Charleston, S. C. at 2½ P. M.; 43 hours, $26, from New York, besides meals and berths; about 800 miles. If you are not a politician, you can go through Washington, in the same time and cost. Two first-class boats from Charleston—the Dictator, Tuesday night, and the City Point, Friday night—arriving next morning in Savannah, and next morning in Jacksonville; fare, $15, distance about 250 miles. From Savannah, by rail, 260 miles; time, 16 hours. The Lizzie Baker runs weekly from Savannah, by the "inside route." All these boats go up to Pilatka; the Darlington and Hattie make weekly trips between here and Enterprise, leaving Sundays and Wednesdays, fare $9.

7. "What is land worth, within four or six miles of Jacksonville?"

From $ to $50 an acre. The first is State lands, in the woods; the second, improved places. There are also some tracts of United States land near here, and much of it in the State.

8. "What is the condition of wild land?"

Mostly thinly covered with hard-pine trees, under which is a tough sod of wild grass. Some land grows "saw palmettos," which have large, troublesome roots on the surface, rich in potash and tannin. The soil is sand sea-shells, in a pulverulent condition.

9. "Will the land produce wheat, rye, oats?"

No.

"Corn?"

Yes, 15 or 20 bushels per acre, lightly manured.

10. "Is it good for grapes and peaches?"

Yes, but the birds will eat the grapes, and you will eat a few of the peaches, and probably feed the rest to the pigs, and import canned fruit from New York, paying for it with cotton.

11. "Is it good for pears and apples?"

No.

12. "Will potatoes, beets, onions, cabbage, &c., grow there?"

Yes, so they will in New Jersey, and be eaten in Florida.

13. "Are there any flats on the St. John?"

Yes, a great many at this season, but they are generally too sharp to undertake the cultivation of swamp land, while dry upland is abundant.

14. "Do you have good water?"

Yes.

15. "Wells, or springs?"

Both.

16. "How deep?"

Various, four to forty feet. Wells are slightly limy; springs are sometimes soft, sometimes too sulphury and warm for use.

17. "What are your building materials?"

Pine lumber, brick, coquina rock, or shell concrete.

18. "Are saw mills near?"

Yes, very near Jacksonville. It is surrounded. This is a great lumber mart; price from $10 to $35 per thousand.

19. "What shingle timber?"

Pitch pine, cypress, and cedar. Timber do., and live oak.

20. "Have you blacksmiths and wagon-makers?"

Yes, sir, and tinsmiths, and steam-engine builders, plow-makers, carpenters, joiners, masons, &c., but plenty of room for more.

21. "Any schools?"

Yes; do you think we are heathen? But there might be more, and better ones, if we had more helping hands.

22. "What are the diseases?"

Malarious.

23. "Any yellow fever?"

Yes; once, imported from Havana. So has New York.

24. "Any ague or chill-fever in Florida?"

Yes; and also in every other State. It is no more prevalent than in Illinois, Iowa, Kansas, and other Western States, and is generally of a milder type.

25. "Do steamers come from New York to your city?"

No; sailing vessels do, every week, and freight is cheap.

26. "Have you any stages?"

Yes; a daily line, forty miles, to St. Augustine. The principal

modes of travel from this town are by railroad, steamboats, mule-carts, and a more primitive way, rather slow but quite independent.

27. "In short, do you like Florida, for a home?"

"In short," if I did not, I would use some of the above modes of locomotion, and get out of it.

28. "How much money should one have, to start from New York, pay expenses, and get a farm of 100 to 300 acres?"

I assure you, that you can not have too much. How much, you may judge from what I have told you about expenses. Living here is less expensive than at New York, because food is generally plainer, and clothing and bedding lighter, fuel much less, and house-furnishing not so extravagant. A tract of land, called a farm, of 100 acres, can be bought for $300 to $1,000, according to "improvements," which are in new country style.

33. "What are farm wages of hands?"

From $7 to $20 a month. The blacks are faithful, but slow, and want constant superintendence, unless the work is straight forward.

34. "How about churches, or preaching out in the country?"

Generally pretty hard. You must depend upon home service mostly, with an occasional sermon from a wine-grass preacher."

35. "What is wood worth per cord, and what is the quality?"

The cost of cutting and hauling. The quality is excellent, being pitch pine (known as "light wood") and solid oak. Coal can be got here at a low freight.

36. "What fencing material is used in the country?"

Pitch pine rails, almost exclusively; sawed stuff about towns; no hedge.

37. "Is there much swamp land?"

Not in this part of the State, as it is all drainable, and muck is the best manure, and generally attainable for use upon sandy soil.

38. "Are swampy districts unhealthy?"

Yes, generally, here or elsewhere; but it is more so here than in any other State.

55. "I have a wife, two small children, and a thousand dollars. Can I go to Florida under these circumstances, commence life on a farm, and by industry support my family?"

Yes, sir, you can; and you can labor here as well as in any other climate. Indeed, you can do more days' work in a year than in any other State; and I do not know of any part of the United States where a man can support a family with less labor than here.

56. "What are the prices of lots in Jacksonville?"

Without buildings, from $200 to $2,000. A full lot is 105 feet

square; six in a block. The streets are broad, sandy in the middle, with plank sidewalks. Such houses as white folks live in here, cost from $300 to $3,000. A very comfortable house with ten rooms, together with the lot, can be purchased for $2,000 to $2,500. There are a few lots with buildings which would sell for $5,000 or $6,000. There is a great need of more houses here for rents are high, and generally pay 25 per cent. profit.

57. "What are day wages?"

Common laborers, $1 to $1.50; carpenters and masons, $3 to $3.50. Common laborers are abundant; skilled workmen scarce and dear.

58. "Above all other considerations, is a loyal man safe in person and property in your State?"

Yes, sir; as safe as in yours (Illinois), particularly in your "Egypt." In Jacksonville, he is not only safe, but may express his opinions as freely as in Chicago. Indeed there is quite a similarity in the population.

59. "Is the climate congenial for a rheumatic person?"

Yes, sir, or for any other person. The thermometer has been down to freezing point only twice this winter. Upon two mornings we have seen a little ice. And since November there has not been a single day that you could not have done a fair day's work in ordinary clothing without getting wet through. The winters are remarkable for their dryness. The latter part of summer is the rainy season. Yesterday was a mild, sunny day. Last night a thunder-storm, with heavy winds, which continued to-day; but so warm that only moderate spring clothing is needed. Yet do not imagine that people are not affected by cold here. I assure you that flannels and warm winter clothing are not only comfortable, but necessary more than half the days of winter. You will also find it pleasant and healthy to have a little fire in your sitting-room nearly every morning and evening of the winter days. The air is often so charged with moisture that people feel chilly with the thermometer at 50° or 60°. It is so seldom at 30°, that whenever it falls to that point, people quit work out-doors, "because it is so cold." Notwithstanding what is said above of moisture, this can not be considered a damp climate, as fogs are rare, and clothing and other articles in the house never mold except during the rainy season, and then no more in this climate than yours.

We have been favored by Governor REED with a copy of his message to the Legislature of Florida, July 8, 1868, from which we extract the following:—

No State in the Union presents superior inducements for immigration, and the profitable investment of capital, than Florida.

With an unrivaled climate for salubrity, health, and comfort; an area of territory larger than the State of New York; a sea-coast equal in extent nearly to the whole of the Atlantic States, abounding with harbors and inlets; with navigable waters susceptible of extension, with little expense, to fifteen hundred miles in length; with a railroad system projected of a thousand miles in extent, near four hundred miles of which is completed; with millions of acres of unoccupied but fertile lands, which can be had for the occupation and payment of the veriest trifle; with forests of pine, live-oak, and cedar, without limit; with lakes and streams abounding in fish, and forests abounding in game; with a free government, that respects alike the rights of all; a free school and a homestead system which welcomes alike the poor as well as the rich;—if only we will appreciate and improve the advantages we possess, Florida may speedily become one of the wealthiest and most thriving States of the Union.

The subjoined is from the February, 1868, Report of the Department of Agriculture:—

Real Estate.—Our returns from Florida are rather meager, only about one-fourth of the counties furnishing responses to the circular sent out. From the northern tier of counties Jackson and Leon report an average decline of seventy-five per cent. in the value of farm lands since 1860, and Liberty fifty per cent. decrease; while in Duval, interior lands have declined twenty per cent., but on the St. John River have advanced one-third in value since the date named; and in Baker the estimated increase is fifty per cent. Alachua County shows a decline of fifty per cent. The next county south reports no change since 1860, our correspondent remarking that but few persons there own the land they live upon, the custom being to "settle in the woods, put up a log-house, clear a small tract and plant it for a few years, and when it begins to get poor, move into the woods again, or move about where the range is good for cattle. There are, however, some fine farms near the county seat, where good corn and some cotton is raised. The value of improved lands is increased by cow-penning. The land is worth from five dollars to twenty dollars per acre. Good pine land can be bought at five dollars per acre, with houses, fences," &c. Still farther south, in Manatee County, bordering on the cypress swamp regions, lands are rated at one-half the estimated value in 1860. In fact, throughout the State the prices now given for farming lands are merely nominal, consequent upon the unsettled state of affairs, and comparatively few sales are made. The average decrease for the State, on the basis of these returns, is 55 per cent.

Price of Unimproved Lands.—There is a large area of wild

or unimproved lands in the State held at figures varying from ten to eight dollars per acre. In Jackson the unimproved lands are claimed to be better than the nominally improved—will yield from ten to twenty bushels of corn, or from six hundred to one thousand pounds of seed-cotton to the acre, and may be purchased at from [illegible] dollars to 2.5 dollers per acre. In Liberty the average value is given as low as ten [illegible]—land low, sandy hommock, capable of producing oranges, sugar-cane, corn, potatoes, rice, and long cotton; Leon, one dollar and fifty cents per acre—quality medium, fair while fresh, easily cleared and cultivated, and will produce twenty bushels of corn or half a bale of cotton per acre, and, by a little manuring, can be kept up to this; Baker County, one dollar and fifty cents per acre—very productive for cotton, sugar-cane, potatoes, vegetables, &c.; Duval County, average, fifty cents per acre. In Alachua nearly all the wild lands are owned by the State, the General Government, or railroad companies. State lands are held at [illegible] fifty cents to eight dollars, mostly at the former United States lands are only in the market as homesteads, and railroad lands vary in price from one dollar to two dollars and fifty cents. The land is principally "pine" considerable heavy pitch pine interspersed with cypress swamps, and in sections hommocks, the latter being very rich. The greater part of the land, however, is valuable only for timber and turpentine. In Levy the wild land is chiefly timber, and valued according to its location. A portion of this land is comparatively worthless, consisting of sand-hills and scrub lands, covered with brush and filled with a variety of wild animals; and people living adjacent are compelled to keep gangs of dogs for protection. There is plenty of Government land upon which to settle, some of it the best hommock land, capable of yielding an average crop of forty bushels of corn; prices from one dollar to five dollars. Manatee County also has considerable hommock lands of first-rate quality, underlaid with marl; worth from five dollars to ten dollars per acre. The timber of the hommocks consists of live-oak, hickory, red cedar, bog, &c., while the pine is the turpentine or long pine.

Resources.—The resources of Florida are to be found in her timber and soil, there existing (so far as yet developed) little of mineral wealth within the limits of the State. In Alachua a small deposit of bog iron is reported, and our Levy County correspondent states that there is a good iron mine in that county which has been worked, but not properly developed. The ore is said to contain seventy-five per cent. of pure iron. The mine is not now worked, and could be purchased cheap. Timber in variety abounds in almost unlimited quantity, but in some sections the lumber business has been overdone, and the mills may be purchased at half cost. The climate and soil are exceedingly favora-

ble to the culture of fruits and to successful general agriculture. Our Levy County correspondent writes: "The resources of this county are the best I ever saw at any place. The soil is not as good as at the West, but the climate is fine, and less work is required to make a good living; and with the same spirit of enterprise here as is seen in the West, would develop a land not now known in the United States."

CROPS.—Cotton, corn, sugar-cane, rice, potatoes, and fruits are the principal crops, but under the present system of culture yields are small and agriculture not profitable. In a number of counties cotton has been the specialty, but under present prices its production will doubtless decline in favor of other crops. Sugar-cane is considered a good crop, and is getting more in favor; it is easily cultivated, and, as our Leon correspondent says, "would be a good crop for white labor." In Baker County, sea-island cotton and sugar-cane are the chief productions. Duval County, sweet potatoes, corn, and sugar-cane; corn yielding twenty bushels per acre, sweet potatoes one hundred to two hundred bushels, sugar-cane two hundred gallons sirup and two hundred pounds of sugar; the latter is the most profitable crop. In Alachua, sea-island cotton is the specialty, of which our reporter says: "The price of this cotton last year ranged from 40 cents to $1.60 per pound; this year, from 35 to 90 cents. The average yield is about eighty-five pounds of lint per acre, but as high as four hundred pounds have been raised. At 50 cents, with the present labor, it is a paying crop. Cotton is a hard crop to raise, takes the whole year, and, for the labor expended, is the least paying crop in the country. During the past season ninety-nine out of every hundred have lost money. Corn produces an average of eight bushels on pine lands, and fifteen bushels on hommocks. Sugar-cane does well, but is raised for home consumption only."

Wheat is not grown as a crop in Florida, though a correspondent writes from Levy County, that he thinks it would do well on their hommock lands, and our Manatee reporter says he has sown a package sent from this department, and it now looks as well as he has ever seen wheat in Maryland or elsewhere.

There are a variety of natural grasses growing throughout the State, and, as a general rule, cattle are pastured on the wild lands and without expense, frequently the whole year round. Among the grasses named by our correspondents are, Bermuda grass, crab-grass, crow-foot, joint-grass, carpet-grass, wire-grass, &c. Our Levy County correspondent writes:—"The grasses are all wild; stock runs out all the year in the woods. They are gathered in the spring, and penned every night until about August, when they are again turned out to run during the fall and winter. While kept up they are branded, and the cows are milked, though they are generally small, and give but little milk, from

one to three quarts per day. The calves, during the summer, are kept from the cows, except morning and night; during the fall and winter they run together."

The capabilities of Florida for raising tropical and semi-tropical fruits are well known, and must soon attract the attention of fruit-growers. In Jackson County grape culture is becoming prominent, the Scuppernong variety being most popular, as it succeeds finely, and is free from disease; the soil and temperature of the county is said to be adapted to the production of grapes, which grow naturally, and in abundance. Our Liberty correspondent says:—"We have a small orange orchard of twenty-five trees, which yields at the rate of $25 per tree. The trees cost but $1 each annually, for pruning and keeping clear of insects." In Baker County, oranges and peaches, vegetables, &c., do well, and pay largely. Our correspondent writes:—"Send us some of your gardeners who understand the business. Last year a gardener planted fifteen acres in tomatoes, melons, cucumbers, &c., which were ready for market eight weeks in advance of Northern vegetables. He shipped to New York, and his net gain was $22,000. I think he is from Maine. An orange and peach orchard of about 100 trees yields to the owner $1,200 annually. We need enterprising men to improve our lands." Large orange groves are being planted in Levy County, and Northern men are settling along the coast, planting fruit-groves and improving the islands, where peaches, oranges, lemons, pine-apples, bananas, grapes, grape-fruit, &c., may be raised in abundance. Tropical fruits do well in Alachua County, especially the more hardy ones, figs, pomegranates, &c., while in Manatee, farther south, the capacity for such fruits is unsurpassed, and only requires communication with Northern markets to develop capabilities in this regard, and to attract industry and enterprise from other States.

The Rev. C. O. Reynolds, pastor of the Presbyterian Church, St. Augustine, writing to the New York *Observer*, November 4, 1868, says:—

As to the most desirable localities for invalids, the most accessible are on the St. John River and St. Augustine. The interior or central portion of the peninsula may present a climate even better for pulmonary invalids; but those parts of the country are not supplied with suitable accommodations, and are not much visited. St. Augustine, on the sea-coast, has long been a favorite resort, and has advantages, social and religious, not possessed by any other place, and physicians of the first ability. The places on the St. John River are: Jacksonville, a flourishing town, with hotels and many boarding-houses, several churches, and good physicians; Hibernia, a single boarding-house; Magnolia, not

now open for visitors; Green Cove Spring has several boarding-houses; Pilatka, a small town, with hotel and boarding-houses; and Enterprise, with a single boarding-house, at the head of navigation.

There are no first-class hotels. This want will soon be supplied. The hotels and boarding-houses are of various grades; most invalids prefer the latter, and find comfortable rooms and fare, and all the attention and kindness needful. Many return to the same house for many successive winters. It is becoming a frequent thing for those who find they can not live at the North in winter to purchase or rent a house or rooms and keep house. This can be done much more economically than boarding. The accommodations for visitors have been very largely increased during the past summer. The prices of board vary from $10 to $20 per week—average about $15. Rents are low in all places except Jacksonville. Prices of beef and fish are very low, especially at St. Augustine. There is much game—venison, wild turkeys and smaller birds—brought into all these places and sold at reasonable prices. Sweet potatoes are abundant at $1 per bushel. But it is well to state that there is not as great a variety of food here as at the North.

Range of the thermometer and the weather. The *Army Meteorological Register* gives the monthly mean temperature for twenty years at St. Augustine, and for thiry-one years at West Point, N. Y., as follows: —

	Jan.	Feb.	Mar.	Apr.	May.	Oct.	Nov.	Dec.
St. Augustine,	57.03	59.94	63.34	68.78	73.50	71.88	64.12	57.26
West Point,	28.28	28.83	37.63	48.70	59.82	53.04	42.23	31.98

Most of the common garden vegetables flourish all winter, oranges ripen on the trees, roses bloom, and mocking-birds sing. A few times we have frost—three times, I believe, last winter. Do not suppose there are no changes of temperature, though there are fewer than in any other State. There are many, and, at times, they are sudden; but the thermometer rarely goes down to freezing, and the shock is far less to a delicate constitution than where it goes far below. During the greater part of the time the sun shines brightly, and invalids can be in the open air. This is the greatest benefit of the climate. I have known many who dared not set foot on the ground from November to April at the North, who have spent part of every day walking, riding, playing croquet, or hunting and fishing. Often, parties are formed who go down the peninsula, camping out, and, as they get beyond the reach of frost within 100 miles south of St. Augustine, such life is most enjoyable for those who have strength for it. Much of the time during every winter we sit

with open doors and windows. Above all things, it is important for those who come here for health to keep as much as possible in the open air.

It may not be amiss to state, in conclusion, that in all East Florida there is, politically, *perfect quiet*, and not the slightest reason to fear annoyance. We possess and enjoy freedom of the press and freedom of speech.

St. Augustine, Nov. 4, 1868.

ALABAMA.

This State lies between latitudes 31° and 35° north, with a portion of its southern border resting on the Gulf of Mexico. Its climate is similar to that of Georgia. Several ridges of the Alleghany Mountains enter the northeastern part of the State terminating in high hills, which gradually decline into an undulating country, succeeded by a vast plain with a southern slope stretching away to the Gulf. The northern and central parts of the State are more productive than the southern, the latter consisting of extensive prairies and pine barrens, the soil of which is sandy. The river bottoms, however, are rich and fertile, and the barrens, under an improved system of tillage, could doubtless be made to yield abundant crops.

"The soil, climate, and vegetation of Alabama vary with the position and elevation of its several parts. In the north, where mountain is the prevaling feature, the soil is but moderately fertile, but in the intervales there is much that can not be excelled. The climate is here moderate, and the vegetation hardy: it is the region of the cereals, and a fine grazing country. The central parts of this State, less elevated and undulating, are well watered, and in the river-bottoms the land is extremely rich and productive. The valley of the Alabama is one of the most fertile regions of the Union. In the south the climate is very warm, the soils rich, but with great exceptions, and the principal growths of a tropical character. The sugar-cane has been found to succeed well in the extreme southern strip between Florida and Mississippi, and indigo was formerly raised in considerable quantities; rice, also, grows well in the alluvial bottoms near the Gulf; but cotton, which thrives throughout the State, is the great agricultural staple. The natural growths and animals are in

Am. Photo-Lithographic Co. N.Y. (Osborne's Process.)

no way different from those of the neighboring States on the Gulf of Mexico. The most common of animals is the deer, and the country abounds in turkeys, partridges, geese, ducks, and various other species of smaller game; and fish in abundance may be taken in the rivers and bays."

All the rivers of Alabama, except the Tennessee, flow into the Gulf of Mexico. Most of these are navigable nearly their entire length for light draught steamers, with occasional interruptions during the season of low water. The coast-line of the State is limited to an extent of about sixty miles, but in this is embraced Mobile Bay, a broad and deep land-locked basin, some thirty miles in length, into which empty nearly all the navigable rivers of the State. This bay forms the best and most extensive harbor on the entire southern coast.

Before the war Alabama was increasing rapidly in population and wealth. In common with other Southern States, she has suffered severely from the ravages of war, but is slowly recovering her former thriftiness and prosperity. The derangement of labor, growing out of the new order of things, has sensibly diminished the annual production of corn and cotton, and prompted encouragement to immigration. Great inducements are now offered to those who wish to become permanent settlers.

Nearly 7,000,000 acres of public land yet remain unsold in Alabama, and besides, there are thousands of well improved plantations which can be bought or leased on favorable terms.

The climate of the more elevated portions of the State is more agreeable and salubrious than in the lower, which frequently lack good water, and are more or less subject to congestive and bilious fevers, and fever and ague. But little snow falls, ice seldom forms in the southern portion, and fruit-trees blossom in February. Cotton, and corn are the principal productions of Alabama; Mobile, the largest city in the State, being second only to New Orleans in its shipments of cotton. Mobile had in 1860, a population of 30,000. It is situated on Mobile River, near its entrance to the bay of the

same name. Its site is a sandy plain, which slopes gradually down to the river. It is well built, and contains many fine public and private buildings, and is not only the metropolis of Alabama, but the second commercial city of the Gulf. The Alabama and Tombigbee rivers, and the Mobile and Great Northern, and Mobile and Ohio railroads, connect it with the interior, and a daily line of steamers run to New Orleans, making the passage in about thirteen hours, through Lake Borgne.

Other important cities of Alabama are, Montgomery, the capital, and second city in size, Tuscaloosa, Wetumpka, Marion, Talladega, Florence, Athens, Jacksonville, &c.

The following is extracted from the last Report of the General Land Office:—

Alabama derives its name from the aboriginal language, signifying "here we rest." Its extreme length from north to south is 336, and the breadth ranges from 148 to 200 miles. Its area is 50,722 square miles, or 32,462,080 acres.

The population in 1820 was 122,901; in 1840, 590,756; in 1850, 771,623; in 1860, 964,201. Even after the desolations of war the present population can not be less than 1,250,000.

The first white men that set foot upon the soil of this State were the adventurers under De Soto, in their famous march to the Mississippi. They found the aborigines a formidable obstacle, evincing a more intelligent manhood and higher social organization than their compatriots farther north.

The first settlement was made by the French, under Bienville, who built a fort on Mobile Bay in 1702. Nine years afterward the present site of Mobile was occupied.

The peace of 1763 transferred to the British crown all the territory north of the Gulf and east of the Mississippi. Its agricultural value soon attracted an Anglo-American immigration, in the mass of which the original French element was absorbed. Alabama, in point of population, now ranks as fourth among the Southern States.

The soil varies with the geographical locality and elevation. The mountain region of the north is well suited to grazing and stock-raising, and is interspersed with valleys of excellent soil. The undulating surface of the central portion is well watered, and, especially in the river bottoms, highly charged with fertilizing elements.

The valley of the Alabama is one of the richest on the continent.

The removal of the canebrakes of Marengo and Greene counties, has disclosed soil of surpassing quality. Toward the coast the vegetation becomes decidedly tropical. Cotton is the great staple, but sugar-cane is cultivated on the neck between Mississippi and Florida, and indigo has been produced in considerable quantities. Oaks in great variety, poplars, hickories, chestnuts, and mulberries, cover the northern and central parts, while in the south the pine, cypress, and loblolly are the prevailing species.

The climate varies with the latitude, approaching within seven degrees of the tropics. The southern coast is strongly assimilated to the torrid zone in its temperature. The nights, however, are alleviated, even in the hottest weather, by the Gulf breezes. During the coldest seasons the rivers, even in the north, are seldom frozen, and the general winter temperature of the State is very mild. The low lands near the rivers are malarious, but the State generally is remarkable for salubrity.

The agricultural statistics of 1860 disclose an advance, in ten years, of fifty per cent. in the amount of land brought under cultivation, and of nearly two hundred per cent. in the value of farms and farm implements.

Live stock presents some enlargement of aggregate numbers, and more than doubles in value. Animal products, such as butter, cheese, wool honey, and slaughtered animals, have increased fifty per cent. Cereals, tobacco, cotton, potatoes, and hay show like increment. Market garden products nearly double in value, while orchard products increase nearly fifteen fold. Like the neighboring Gulf States, an injudicious cultivation of cotton, tobacco, and other heavy staples, has somewhat exhausted the fertility of portions of the land. Tillage and rotation of crops will remedy the mischief and restore the elements of productiveness. The agricultural development of Alabama awaits the final adjustment of the system of labor, the State possessing elements promising a bright future.

The mineral resources of Alabama are sufficiently known to indicate their abundance and variety. The central region is underlaid by vast beds of iron ore, alternating with thick coal measures of great extent. The juxtaposition of these minerals favors mining operations and the processes of preparing iron for market. Lead, manganese, ochers, and marbles, are found in different localities, and even gold is reported. Sulphur and chalybeate springs are of frequent occurrence.

The returns of 1860 show 1,459 manufacturing establishments, with capital of $9,098,181, producing articles valued at $10,588,571, at an outlay for labor and raw material of $7,622,903; the margin of profits was $2,965,668, or nearly 30 per cent. on the capital invested. A new era in manufacturing enterprise may be expected in the reorganization of labor now in progress in this and other

States, in which this great industrial interest will find its true position and influence in the social system.

The natural advantages possessed by Alabama are very important. The magnificent Bay of Mobile and a river navigation of 1,500 miles form an outlet not only to her own productions, but also to those of the neighboring States. A very considerable foreign and domestic commerce has its seat at Mobile, which will increase with the development of the State. The natural advantages are being supplemented by an extensive system of railroads yet in its infancy. In 1860 Alabama had 743 miles completed and in full operation, with several hundred more in process of construction or projected. These will connect Mobile with the prominent railroad centers of the country and permeate the whole State with their beneficial influence.

Montgomery, the capital, with a population of 10,000, on the left bank of the Alabama, 340 miles above Mobile, is admirably located for a domestic commercial depot. Its railroad communications are extensive and increasing, while the Alabama, which never freezes and is seldom affected by drought, is one of the best steamboat rivers in the country. The city is well built, with numerous literary institutions, and periodicals circulating extensively through the State. Its commercial transactions are on an important scale.

From a recent Report of the Department of Agriculture, we copy the following:—

PRESENT VALUE OF LAND AS COMPARED WITH 1860.—The county reports show an average decrease in the price of farm lands of about sixty per cent.; no county reporting an increase. The decline is not uniform throughout the State, being affected in many cases by local causes, and varying according to the size of the tracts or farms offered for sale. Coosa County exhibits a decrease of at least fifty per cent. in large plantations, while small and well-improved farms sell at about the same price as in 1860. The maximum decrease reported is in the counties of Conecuh and Montgomery, where it reaches ninety per cent. A decline of fifty per cent. is observable in Macon County. Our correspondent writes as follows: "In 1860 the lands of Macon ranged in value from three to fifty dollars per acre. As the county is penetrated by two leading lines of railway, connecting on the east with Columbus, Georgia, and on the west with Montgomery, Alabama, access to market is ready and reliable. The county is in general remarkable for the salubrity of its atmosphere, and in many parts for the fertility of its soil. Toward the northern extremity the geological formation is metamorphic, presenting limestones of very considerable economic value. The southern portion of the country

lies in the upper margin of that wide belt of the cretaceous formation which stretches entirely through the State, and which furnishes some of the richest lands in the cotton growing States." In Marengo County, near the western border of the State, the decrease is 66 per cent., though some of the best lands in the State, worth, in 1860, $20 to $75 per acre, are included within its limits. The reporter says: "In the section known as the Canebrakes, plantations rarely change hands during the lifetime of the owners. A gently undulating surface, a soil of great fertility, and a pure air, characterize this portion of the country. Cedars of large size originally covered most of the land, and constituted the fencing material. The soil, being largely impregnated with lime, is admirably adapted to the cereal crops, while cotton, in favorable seasons, yield large returns. Corn, cultivated on the same land for thirty years without manure, frequently yields 50 bushels per acre. These lands are intrinsically as valuable as any in the United States. In other parts of the country are large areas of improved fertile 'post oak' and river lands, that were worth, in 1860, $20 to $30 per acre. All these advantages must, in time, make the country exceedingly attractive to immigration. Cut up into small farms, and cultivated by an intelligent population, these lands will rapidly attain their former value, and probably exceed it." There is a class of canebrake lands in many counties of central Alabama, of a similar character.

Present Price of Unimproved Lands.—The average price of unimproved lands may be stated at $1.75, the range being from 12 cents to $5, including a variety in quality and natural capabilities. In Macon, Conecuh, Butler, Chambers, Morgan, Tuscaloosa, and some other counties, the general character of such lands is poor; pine forests, with a thin soil, coveringla rge areas. The timber constitutes the chief value of such lands, though, in some cases, when cleared, especially upon the banks of the small streams, they produce well. In some other sections of the State, the uncultivated lands are heavily timbered with pine, oak, hickory, poplar, walnut, mulberry, &c. They are generally attached to plantations, and are used as summer ranges for cattle and hogs. With a proper system of culture, and an industrious, energetic population, a large portion of the now unimproved lands will be reclaimed, and prove of great value.

The inducements presented for the investment of capital, and the immigration of intelligent labor in the agricultural and mineral resources of the State must, at some future time, make it one of the most desirable portions of the country.

Timber.—Immense forests of the finest qualities, and most valuable kinds of timber cover large tracts of land in the counties of Marengo, Clark, St. Clair, Clay, Marshall, Randolph, Lee, Baine, Hale, Chambers, Montgomery, and many others; while in Tusca-

loosa, Perry, Butler, Conecuh, Coosa, Calhoun, and Macon, pine, in seemingly inexhaustible quantities, awaits the introduction of steam saw-mills. As yet, but little lumber is sawed beyond the wants of the resident population, in part, owing to the want of cheap transportation.

MINERALS.—Minerals have been lavishly distributed. Coal, iron, gold, silver, copper, lime, granite, and serpentine, are found in many localities; and, in some instances, were successfully mined before the commencement of the war. In Randolph County, gold was discovered in 1836, and fortunes were made by mining. In Baine County, the indications of copper and lead in the mountains have been sufficient to induce efforts, on a small scale, to develop them. Lee County produces granite of an inferior quality; and also a coarse serpentine, which was worked, by the aborigines, into water-vessels, and is now used for backing fireplaces, &c., &c.

CROPS.—Previous to 1860, cotton received by far the greatest share of attention, and constituted almost the only article of export. Other crops were raised for home consumption, and made subsidiary to it. For many years past the yield, per acre, of the great staple has been steadily diminishing under the careless system of culture it obtains, no return being made to the soil for the continued and exhaustive demands made upon it. An almost universal complaint is made of the unprofitableness of cotton culture at present prices and in the unsettled condition of labor, and a determination expressed to devote more attention to the cereals and root-crops, some of which are well suited to the soil and climate.

Red May, purple-straw, blue-stem, Orleans, white May, red Mediterranean, common white, and other varieties of wheat are sown. Winter wheat is almost exclusively grown, but the crop is a very uncertain one, and but little care taken in its culture; drilling is almost unknown, the "brush drag" being frequently used to cover the grain sown upon roughly-plowed land. Red May, Orleans May, blue-stem, and purple-straw, are especially mentioned as being earlier, more hardy, and less liable to rust, the great enemy of the wheat crop in that region. Seeding is done during October and November, and harvesting from May 20 to June 20.

No special attention has been given to the cultivation of grasses. Crab-grass is the most common of the indigenous kinds, springing up in oat-fields, and taking complete possession of the corn lands as soon as the cultivation of the crop ceases, thus furnishing good summer pasture. On worn-out lands broom sedge springs up, affording good early pasture, but becoming too dry and harsh by midsummer. In many places the Bermuda grass has taken firm foothold, and within a few years the *Lespedeza* has

made its appearance, displacing all other varieties, and proving a very valuable acquisition to the pastures. In Marengo and Hale counties, red clover has been found to do well on the richer soils, but it is not generally cultivated. Some other varieties, such as flag grass, "nimble will," &c., have good local reputation.

FRUITS, in great variety, flourish. Apples, peaches, pears, plums, figs, apricots, pomegranates, grapes, melons, berries, &c., are grown, or grow spontaneously; but little attention, however, is paid to fruit culture, except for home consumption. The Scuppernong grape is reported by a correspondent in Marengo County to be entirely free from rot, and to yield certainly and largely. In Perry County 3,000 to 4,000 quarts of strawberries per acre, valued at 20 cents to 50 cents per quart, is not considered an unusual yield. A farmer in Macon County realized $87.50 from the melons grown upon one-eighth of an acre.

CORRESPONDENCE.

TALLADEGA, ALA., *November* 5, 1868.

Mr. F. B. GODDARD:—

DEAR SIR: * * * I will briefly notice, *seriatim*, the points to which you call attention in your letter.

1st. Talladega County has been long distinguished for the fertility of its soil, but after a constant cultivation for twenty-five years, and that, too, in the most unskillful manner, it is, of course, somewhat worn; but being composed of chocolate-colored clay, mixed with some sand and iron ore, it is susceptible of easy improvement. No system of manuring has ever been known here. The soil has yielded so freely that such a thing has rarely ever been thought of. Where it has been done, however, the productiveness has been increased from twenty-five to fifty per cent. Of its own native strength, abused as it has been, it now yields—of corn from ten to thirty-five bushels per acre, of wheat from ten to twenty bushels per acre, and other grain in proportion; of cotton, from eight hundred to two thousand pounds per acre; fruits and vegetables grow abundantly. The price ranges from six to fifteen dollars per acre.

2d. The labor consists mostly of freedmen, at ten dollars per month, or a portion of the crop—one-half or one-third, according to what is furnished by the parties for making the crop. What we need is intelligent laborers, with the latest and most approved labor-saving machinery, which we hope to see soon.

3d. We have but little very warm weather here. The thermometer rises sometimes to 98°, for a period of ten or twenty days,

but we have, throughout the summer, a pleasant breeze from the Gulf. Sometimes we have one snow during the winter, and that only two or three inches deep, disappearing in a day or two. We have had two light frosts up to this time, and they occurred within the last week. I have spent most of my life in the North, and am prepared to appreciate the mildness and delightfulness of this climate, and especially—that which is above all—the *healthfulness* of the country.

4th. Timber abounds; oak (different species), hickory, ash, poplar, pine, &c., &c. There is a formation of marble thirty miles in length in this county. Iron ore abounds. Limestone everywhere, convertible into lime at a very small cost.

5th. The Selma, Rome & Dalton Railroad runs through this county, thus affording communication with any portion of the Union. It is about 100 miles to Selma, and the same to Rome, Georgia, either of which is a good market for every thing raised. The town of Talladega, which is immediately on this road, has about two thousand inhabitants, and is growing.

6th. Good school and religious advantages. There are three churches, Baptist, Presbyterian, and Methodist, and four or five schools.

7th. The great majority of the people are native Americans—the older citizens from different States.

I am very truly,

PAUL STEVENS.

MONTGOMERY, ALA., *July* 31, 1868.

DEAR SIR: Your letter of the 29th inst., asking for information in regard to this State, has been received.

This part of the State is usually called the cotton belt—a tract of country varying in width from fifty to one hundred miles, and running across the State in a direction nearly east and west. It is a very fertile region. The soil is generally nearly black, containing a large per cent. of lime. The growth, oak, hickory, white-oak, and post-oak. There are, however, within this scope of country, tracts of land, varying in extent, where the soil is sandy. The growth, long-leaf pine. This was the great planting region of the State. The lands are generally owned in large bodies, and devoted almost exclusively to the growth of corn and cotton. The large proportion of the black population is found here, and the tendency of those found in other parts of the State is to the cotton belt. Lying north of this cotton belt is a section of the State differing widely from it. The climate, soil, variety, value of the productions, and salubrious climate, all make it one of the most delightful parts of the United States. The Alleghany

Mountains, as you know, enter the State on the northeast, and while they diminish in height, increase in width, forming a country of parallel ridges and intervening valleys more than one hundred miles across. While much of this country is unfit for farming, many of its valleys are exceedingly fertile, and the hills abound in mineral. Springs of the purest water are abundant—the streams afford a great variety of fish, and the finest of water-power.

As to the productions, cotton grows well; careful cultivation has been known to produce over 500 pounds of clean cotton to the acre, though with the processes usually employed not half that amount is produced. Corn grows well, better than in the Northern States, though not so abundant in its yield as in the West. Wheat is a valuable crop, as it comes into market before the Northern crop, and always commands the highest price. As fine fruit as the continent affords—apples, peaches, pears, plums, grapes, figs, pomegranates, strawberries, in fact all the fruits of the United States (except the oranges of Florida), of the finest quality and the greatest quantity, may be produced. The hop-vine grows well, and I am confident the yield will exceed that of the North and West. Every variety of vegetables can be grown. The hilly portions furnish endless pastures for sheep and cattle, while the hickory, oak, and pine, in the fall and winter, afford abundant food for hogs.

Minerals of great value are excedingly abundant. The coal fields of the State, embracing an area of six thousand square miles, afford fuel equal to that of Pennsylvania. The Red Mountain, so called because of its beds of red iron ore, runs for more than one hundred miles across the State, with a strata of solid ore, varying from two to eight feet thick. Beds of brown iron ore of most marvelous extent and of the finest quality, are found in the counties of Bibb, Shelby, Jefferson, Talladega, St. Clair and Claiborne. Here are found also beds of the purest limestone; marble, white, gray and varigated; hydraulic limestone; lithographic stone, manganese, sulphate of Baryta, slate, fire-proof-stone, flag-stone, sand-stone, equal to the brown stone of New York, porcelain clay, and red ochre. In short, all the minerals to be found anywhere in the Alleghany Mountain region, from New York southward, are here in Alabama.

This region is populated almost exclusively by white people. Before the war, when the wealth of the State was engaged in the culture of cotton, its vast and diversified mineral resources were in a great measure overlooked. It is one of the most beautiful regions on the globe. Freed from the rigor of Northern winters by its latitude, and also from the great heat of the Southern summers by its elevation, it is certainly one of the most delightful countries to be found.

As to its facilities for transportation, the Selma, Rome and

Dalton Railroad runs along its southeastern border for its whole length; the South and North Alabama Railroad, now in process of construction, from Montgomery to Decator, on the Tennessee River, will cross it in a direction nearly north and south.

The Mobile and Chattanooga Railroad will run through it from northeast to southwest. The Opelika and Elyton Railroad will pass through it from southeast to northwest, so that it promises at no distant day abundant facilities for transportation.

The farming lands can be purchased for from five to ten dollars per acre.

What this country needs is population accustomed to improved modes of agriculture, to the raising of stock, to mining and manufacturing. It can furnish happy and thriving homes to hundreds and thousands of such. In every neighborhood will be found a school-house and a church, although the educational facilities are confined to the rudiments of learning, and worship to the simplest forms.

In conclusion, permit us to say that we think no State in the Union promises such an inviting field for labor, capital and enterprise as Alabama.

Respectfully,

NEWMAN & HUGHES.

Mr. F. B. GODDARD, New York.

FLORENCE, LAUDERDALE COUNTY, ALA.,
July 30, 1868.

SIR; Land can be bought here, in any sized body wished for, from $5 to $10 an acre, which will produce from 400 to 1,000 lbs. per acre of cotton, and from five to ten bushels of corn; wheat, from six to fifteen bushels. Our county is as healthy as any in the United States. The Tennessee River passes along the whole border; it is well watered with springs, creeks, &c. We desire emigrants above all things.

Yours, &c.,
J. W. STEWART.

TUSCUMBIA, ALA., *August* 5, 1868.

F. B. GODDARD, Esq.:—

DEAR SIR; * * * Our soil may be considered old, having been in cultivation some forty years, but produces exceedingly well, especially if manured a little. It produces from five to eight barrels of corn per acre, withgood seasons; and from 500 to

800 lbs. of seed-cotton. In other words, three acres will make a good-sized bale of picked cotton. It produces wheat, on an average, of from 12 to 20 bushels per acre; sweet, and Irish potatoes, and fruits of every kind, in abundance. Our country is rather scarce of water and wood; but coal is convenient in East Tennessee, and on the railroad running from Charleston, S. C., to Memphis, Tennessee, on the Mississippi River.

The landed estates are generally large, but the owners are now willing to cut them up into small tracts, to accommodate purchasers, at from $8 to $12 per acre. The negro, or black labor, is preferable, as they are better able to stand the hot sun; it is worth from $8 to $12 per month, and rations found. White laborers would be preferred if they could stand the sun, though a great many poor white people are leaving our mountains, and coming into the valley on the large plantations, and cultivating the soil on shares, or some are renting lands at $2.50 to $3 per acre. We have several Northern families near our town, from Michigan and other Northern States, who are much pleased with the climate and soil. The majority of our people are Americans from North Carolina and Virginia.

We are convenient to the Memphis market, 160 miles, and can dispose of every thing we can produce in twenty-four hours' time. Our people are anxious for emigrants to settle here, and they will be kindly received and welcomed among us. Our mountain lands can be entered at 12½ cts. per acre, suitable for the culture of grapes and fruits.

Yours, &c.,

GEO. W. CREAMER.

MISSISSIPPI.

THIS State possesses many characteristics in common with Alabama, which forms its eastern boundary. Its length from north to south is 334 miles, and its average breadth, 150. It contains 30,179,840 acres, of which nearly 5,000,000 acres are unsold public lands, open to the settler under the homestead and pre-emption laws, although probably the best lands are claimed by individuals, as in other long settled States. The population in 1860 was 791,395, of which more than one-half was colored. The total population is now estimated at 900,000.

The surface of Mississippi is generally undulating, with a prevailing slope to the south and southwest, as is apparent from the general course of its numerous streams. It possesses no mountains; but along the Mississippi are numerous hills, called bluffs, which rise to the height of from 50 to 100 feet above the bottom lands, which lie between them and the river. This bluff region forms, with some exceptions, a belt of territory from ten to twenty-five miles in width, bordered upon the east by extensive plains, and extending north as far as the mouth of the Yazoo River. The bluff region is fertile, and covered naturally with thick forests of ash, oak, gum, maple, poplar, &c. From the Yazoo northward, for 170 miles, embracing the valley of the Yazoo, is a vast swampy region, from 20 to 50 miles in width, annually overflowed by the Mississippi. Portions of this section are sufficiently elevated for cultivation, and are of astonishing fertility, producing almost unequaled crops of cotton and corn. The eastern and central parts of the State are generally elevated table-lands, filled with clear running streams, very healthy, with much very rich land, adapted to cotton and corn. In some portions the soil is fertile, but thin; and the loam is often washed away by the

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rains so as to expose the sandy subsoil. The bottoms are universally productive and desirable.

In the northeast is the "Tombigbee," or prairie country, extending for a considerable distance down the Alabama line. This region is level, and the streams are sluggish. The soil is an inexhaustible black adhesive loam, of great fertility, and yields immense crops of cotton and other products.

From the prairie region south, along the line of the Mobile and Ohio Railroad, the surface is more uneven and hilly, with frequent beautiful and fertile valleys. The soil is sometimes sandy, and is not, as a whole, characterized by the extreme fertility of some other portions of the State. Some of the counties, as in Lauderdale, abound in limestone and iron ore. This section of the State is extremely healthy, and while not producing, comparatively, a large yield of cotton, is well adapted to grain, and is famous for its cattle.

The southern counties, for 100 miles from the Gulf, are generally low and sandy. They are covered with pine forests, interspersed with swamps, and are not remarkable for their agricultural capacity. The bottoms of the Mississippi are probably the best lands of the State, and where embankments are established to protect them from the annual destructive inundations of the river, they will equal in productiveness any lands upon the continent; and their "inexhaustible richness bids defiance even to the appetite of the devouring cotton-plant." Commissioner WILSON, of the Land Office, says:— "The agricultural capacity of Mississippi is incalculable. In the amount of land reduced to cultivation, the returns of 1860 show an increase in the number of acres of sixty per cent. in ten years, and in the value of farms and agricultural implements of over 200 per cent. The live stock have, on the whole, enlarged their numbers, and more than doubled in value. The animal products, of butter, cheese, wool, slaughtered animals, and honey, have increased their volume, in some cases, fifty per cent. The cereal crops, with tobacco, cotton, peas, beans, potatoes, and hay, have had a still greater increment.

"The products of orchards and market gardens have tripled and quadrupled.

"The reorganization of labor will require time after the struggles of the late civil war. With an entire revolution in the theory of the industrial system of the State, it is beyond doubt that the agricultural interests of Mississippi will yet be one of the great productive powers of American civilization."

A writer in the *American Cyclopædia* says:—"The fertility of the soil, and a favorable climate, give to Mississippi eminent advantages as an agricultural State. There is, perhaps, no other country in the world that has such alluvial lands as the Mississippi bottom contains. An alluvial plain, in a mild climate, level as the surface of the ocean, and of inexhaustible fertility. And this plain is only a small part of the fertile lands of the State. The table-lands of the north, the loams along the bluffs and banks of the Mississippi, the dark and heavy prairie lands, and the inland bottoms, are of scarcely less fertility. The prairies, especially in the Tombigbee district, furnish excellent pasturage. The climate is remarkably equable; sugar is produced in the south, and cotton forms the great staple of a large part of the State. Wheat and other grains occupy the northern districts. All the fruits of temperate climates grow here in perfection. Plums, peaches, and figs, are abundant, and in the south, the orange. Most of the streams abound in fish. Paroquets are seen as far north as Natchez, and wild turkeys and pigeons abound."

The climate of Mississippi is mild and generally healthful. The winters average colder by a few degrees than points in the same latitude upon the coast.

There were 872 miles of railroad completed and in operation in the State in 1860, and there is no doubt that the railroad system will continue rapidly to expand.

Jackson, the capital, is situated on Pearl River, 45 miles from the Mississippi, from which point it is connected by the Vicksburg and Meridan Railway, and with New Orleans, distant 183 miles, by the New Orleans, Jackson and Great Northern Railway. It is regularly built, on level ground,

has a population of about four thousand and is a prominent depot.

Natchez is also the center of a large cotton trade. It is situated on a high bluff overlooking the Mississippi River, 280 miles above New Orleans. Its population in 1860 was nearly 7,000. Vicksburg, 408 miles above New Orleans, on the river, is also an important commercial point. This city will long live in history as one of the principal objective points in the late war of secession. It was fortified by the Confederates at an early period of the war, and controlled the navigation of the river until its final capitulation to the Northern army under General Grant. Its population in 1860 was about 5,000, and before the war it was a great cotton mart.

The tenor of all our letters from Mississippi is, that immigrants are earnestly desired, and many inducements are offered to industrious tillers of the soil.

We copy the following from the monthly Report of the Department of Agriculture for March, 1868:—

VALUE OF LANDS AS COMPARED WITH 1860.—Returns from Mississippi indicate a large decrease in value of farm lands as compared with the valuation of 1860. De Soto and Tippah, in the extreme northern part of the State, show a decrease of 75 and 50 per cent., respectively, attributed almost entirely to the unsettled condition of political and financial affairs, and the disastrous results of the cotton culture of the past. In De Soto, one year ago, farming lands would sell for about three-fourths their value in 1860, but the financial distress, consequent upon the fall of cotton prices, has thrown a great deal of land on the market, and reduced the price to very low figures, more than three-fourths of all the land in the county being for sale, and much of it must be disposed of at forced sale, it having been mortgaged for supplies, &c. The same may be said of many other counties, largely engaged in cotton culture. Along the central tier of counties, Kemper reports a decrease of 75 per cent.; Lauderdale, 70 to 80; Winston, 66 to 75; Attala, 66; Leake, 50; Washington, 75; Yazoo, 66; Madison, 60 to 70; Hinds, 75—with few sales at any price. In Pike County, in the south, bordering on Louisiana, farming lands have fallen in value 50 per cent., except those adjacent to railroads, while in the adjoining county of Marion the decrease is set down at 75 per cent. The average depreciation throughout the State is 65 per cent.

PRICE OF LANDS.—Half of the land of Mississippi is not included in farms, and only a third of the area in farms has ever been at one time under improvement. In the best cotton districts, cultivated lands have been comparatively high, but few were ever held at their intrinsic value, on account of the extent of the unoccupied area in the southwest. In the southeastern portion of the State, between the capital, Jackson, and Mobile, in Alabama, the population is sparse, the land mostly is unentered, the soil sandy, with a small extent of rich creek bottoms, the price of unimproved tracts varying from twelve cents to one dollar per acre. The growth is composed of oaks, hickory, gum, cypress, and long-leafed pine, the latter predominating, of great height and size, of industrial importance in connection with turpentine-making and lumbering. The soil, like other sandy loams, is easily worked, and productive for a few years, becoming exhausted with constant cropping and no fertilizing. A bale of cotton per acre has been obtained upon such soil; sweet potatoes in unlimited quantities are easily produced, and might prove a source of large revenue under the new mode of slicing and drying for distant markets; the castor-oil bean grows finely here, and might be made a source of profit and improvement to the soil; peaches are a sure and abundant crop, beginning to bear in three years from the seed; and wool-growing will prove remunerative and a valuable auxiliary to tillage farming, wild grasses everywhere abounding, succulent and rank in growth by the middle of February.

The water is excellent, and the climate healthy. All that is needed to start this region upon a career of prosperity is a railroad to the Gulf coast from some point on the Mississippi Central. With such a road, land now a drug at 12½ cents per acre, would be greedly taken at $1, and eventually, with improvements, would be cheap at $20. Similar lands, though generally better, on the line of the New Orleans, Jackson and Great Northern road, west of Pearl River, are now attainable at $5 to $10, or $20, near stations, and are bargains at those prices. In the northern part of the State, unimproved tracts average about $1 per acre; in Hinds County, $2.50; in Madison, $2; in Washington, on the river, fine Mississippi bottoms, perhaps unsurpassed in the world, $5 per acre. On the line of the Mobile and Ohio Railroad, $2.50 is a common price. The Hinds and Madison County unimproved lands will yield 300 pounds ginned cotton, 25 bushels of corn or 200 bushels of sweet potatoes per acre without manure. Productive tracts in Yazoo can be purchased for 50 cents per acre, In De Soto are some sixty sections of "Mississippi bottom" at $4 or less, per acre.

The following statement concerning wild lands in Pike County. is made by Wm. H. Garland, correspondent for that county:—

"The average value of wild or unimproved lands, within a circuit of three or four miles of a railroad depot, is about $5 per acre, but taking the whole county it is about 50 cents per acre. The general surface of the county is undulating, marked by long leading ridges, which divide the water-courses. The bottom lands are hommock, and are very productive, except where there is too much sand."

The southern portion of the State, west of Pearl River, is very similar in character of soil to western Tennessee. The surface is a loam, enriched with humus, underlaid with a stiff clay intermixed with loam, beneath which is a stratum of sand and gravel. Numerous water-courses drained bottom lands, varying from a few rods to a mile in width, still richer in plant food, and enduringly productive. This region, like that east of Pearl River, is well wooded with several species of oak, hickory, beech, poplar, cypress, magnolia, &c., from which considerable lumber has been profitably manufactured. The soil in Hinds, Warren, and Madison contains limestone and marls, and is exceedingly productive. Much of the soil in the northern counties is very productive, and from Vicksburg to Memphis its fertility is unsurpassed, and its timber of enormous growth. Some of these counties report no minerals, "not even a grain of sand," the soil being an unmixed alluvial deposit of unknown depth.

Our correspondent in Pike County says:—

"The altitude of this place and some of the adjoining hills being 500 feet above the gulf, gives the pine a closeness of texture that makes it very valuable. These forests will afford an average of 10,000 feet of lumber to the acre. Saw-mills in the range of transportation were doing well until the prostration of the country. Now, as the lumber can not be sold for cash, there is not enough capital in the country to run the mills, and most of them are idle."

COTTON.—Cotton is the only specialty of agricultural production. Mississippi has taken the lead as a cotton-growing State, and at one time produced one-fourth of the cotton of the United States. Our correspondent in De Soto County, in giving the local production of cotton for the years subsequent to and preceding the war, illustrates very fairly the proportionate product of the whole cotton-growing belt in those years. He says:—

"The yield in 1860 was 40,000 bales; in 1866, 16,000; and in 1867, about 20,000. In 1866, the culture of cotton yielded a fair profit; in 1867, not one pound has paid the cost of production."

He further says:—

"Wheat grows well here, and can be produced in quantities to yield a good profit—the average yield being about ten bushels per acre. Our best lands yield from fifteen to twenty bushels, and by manuring, a greater yield may be realized from average

lands. But wheat and cotton can not be grown by the same set of hands, because the sowing season of wheat conflicts with the picking of cotton, and the harvesting of wheat comes at the most important season for working and thinning the cotton plant, a few days in the early part of June being the most important of any in the whole cultivating season."

In the rich alluvial soils of Washington County, "wheat was grown during the war, and its yield was thirty bushels per acre." White and red varieties have been grown to some extent in Yazoo; white preferred, as less liable to rust. In Leake, a preference is given to the hardier red wheat. Red wheat is preferred in Winston. In Pike, little attention is paid to wheat, "though the grain is plump and the bran is thinner than in more northern latitudes." In De Soto, "wheat has never been to any extent an article made for market, though the county has two or three times before 1860 sent the first to the St. Louis market. In 1860, fully half the flour consumed was grown here; in 1866 and 1867, very little was grown, though the land in wheat in 1867 yielded a good crop. A very large breadth of land is now in wheat." The usual time of sowing is between the 15th of October and first of November, though many sow in the early part of October, and some in the latter portion of September. The time of harvesting is generally the last week in May; early varieties, with good season, are cut somewhat earlier. The length of the season is variously stated, from six to twelve months. The fact is, that stock are never fed to any appreciable extent, with the exception of horses and mules. Sheep and cattle pick up their living in the winter months, as in summer. It is true that sheep and horned stock, as well as horses, are sometimes treated to occasional winter pasturage upon rye or barley sown in September. With this help it is possible to keep large flocks of sheep, with little expense; and other kinds of farm animals may be brought through the winter in good condition without other feed. The price of pasturage is estimated at very low rates; in some counties as low as $2 or $3 per season, while others range higher, up to $1 per month.

Figs and peaches everywhere abound, growing rapidly and bearing profusely and surely. Until lately no profit was derived from them, and now only on the line of railroad running lengthwise through the State. Formerly peaches were pecuniarily profitable only in pork-making. The crop is very sure in the southern part of the State; in the northern, it is sometimes injured by frosts.

Apples do pretty well, if kinds are selected which suit the climate. Small fruits produce in great abundance. The pear is apt to blight, but is favorably mentioned in some localities. Grapes do well in the poorest soils, and are free from disease; the Hart-

ford, Prolific, Lenoir, Diana, Concord, and Catawba, are mentioned with approval in the southern part of the State. Our correspondent in Washington says:—

"The peach succeeds remarkably well; the trees are often from a foot to fifteen inches in diameter, and I know some 18 years old. One tree will yield more fruit than four in New Jersey."

CORRESPONDENCE.

The following comprehensive and interesting communication is from a prominent gentleman of Vicksburg, and will repay a careful reading:—

VICKSBURG, MISS., *July* 30, 1868.

DEAR SIR: Before the war I was a cotton-planter, and had been for twenty-seven years, living on one of my plantations, where I made from 500 to 600 bales of cotton, managed the general affairs of the plantation up to the year 1861, and thus became familiar with all the details of planting. I planted on the alluvial land.

1st. The character of the alluvial land for productiveness is not surpassed by the prairies of Illinois. Cotton was our staple production. I have raised two bales of 400 pounds to the acre, and believe that as much as three bales have been produced, and 100 bushels of corn. Our average crop, however, was about one 500 pound bale to the acre, and 40 bushels corn to acre. The most favorably located alluvial land, perfectly free from overflow, with fine improvements, *i. e.*, with good dwelling and quarters, steam or horse power gin, and about half the land cleared for cultivation, can be bought for from $10 to $20 per acre. Land equally good, but subject to overflow in the present condition of the levees, situated back a short distance from the river, can be bought at from $3 to $5 per acre. Our hill lands can be bought at from $5 to $10 per acre, and some even at $2 and $3, owing to locality and convenience to river or railroad. They will yield half a bale of cotton and about 25 bushels of corn to the acre.

Big Black bottom lands of best quality, which are second only to alluvial lands of Mississippi River, can be bought for from $5 to $10 per acre, with fine improvements. They yield from ¾ to 1¼ bale to the acre, and as much corn as the best alluvial lands, which is about 40 bushels average, but sometimes 75 and 80.

Irish potatoes can be raised on any of these lands, at the rate of 400 bushels to the acre, but will not keep through the summer.

Sweet potatoes are raised at the rate of 500 to 1,000 bushels to the acre. Poor, sandy land produces them as well or better than the richer lands.

Turnips, if the ground is properly prepared and the season favorable, generally make at least 600 bushels to the acre.

The ruta-baga is the best variety for this climate, both for the table and stock. They ought to be planted by the first of July, and cultivated, but will make a good crop planted the first of September. Tomatoes, cucumbers, cabbages, lettuce, beets, watermelons, and cantaloupes, are perfect.

Wheat, oats, barley, and all the cereals do well in this climate.

The peach grows to great perfection; and any man of industry can have peaches from the seed in two years. Pears and plums, figs, strawberries, raspberries, blackberries, all grow here in the greatest perfection.

Grapes, apples, &c., do well, but not as well as the other fruits. The fig is the most delicious and healthy fruit, and bears nearly all the summer.

2d. Price of labor this year has ruled low, and the supply has been abundant, but the two previous years it averaged at least $12 per month and found. The supply is limited when compared with our open land—not more than half of which could be cultivated by the present population, even if all were disposed to work. Field hands are most needed.

3d. Our climate is the most genial and delightful in the United States; our summers more pleasant than winter. We never have the extreme heat found in the West. Sunstroke is of rare occurrence. We have a breeze, generally, day and night. Persons coming here have to undergo an acclimating, which is generally mild, especially if they are temperate in eating and drinking. The writer raised a family of eight children on the alluvial land, and owned a plantation where there were 100 negroes, and out of that number at one period in three years there was but one death. White people are equally healthy. White men can raise cotton, as I will attempt to prove, with but little exposure or risk of sickness. Chills and fevers, of a milder type than they have in Illinois, is the principal disease; in fact, almost the only one peculiar to the climate. Yellow fever is never found in the country, even a mile from a city where it prevails.

4th. Mississippi and Louisiana abound in the finest oak timber in the world. Large bodies of white-oak may be found throughout the country, but our cypress, which only grows in low or flat lands, is the great timber of the country. It makes the best fence rails, shingles, pickets, posts, and rails, split boards 6 feet long, or even 8 and 10, and saws into the finest plank, studding, flooring, weather-boarding, &c. There is no kind of building that can not be done with cypress, and it lasts, exposed as shingles, fence rails, &c., for 30 years, while under shelter it would probably last 300 years; and it has been dug up out of the ground where it probably had kept sound 1,000 years. Pine is not found in East Louisi-

ana or West Mississippi. A large lumber trade is now going on between Vicksburg and St. Louis, every packet taking from our wharf thousands of feet of cypress lumber, sawed here, and pine brought from East Mississippi on railroad.

6th. Along the banks of the Mississippi the planter or farmer can send any of his products to market with convenience.

One man, living fifty miles above Vicksburg, made $3,000 this year, shipping roasting-ears to St. Louis in June and July. Another made $1,500 from five acres of Irish potatoes shipped to St. Louis in May and June. Our whole country is so well supplied with navigable streams and railroads, that no one has to haul to market over 25 miles; and on the alluvial lands we have thousands of miles of natural canals that only require clearing of trees and brush to make them navigable six months of the year. No improvements were made on them before the war.

7th. Schools are to be found in most neighborhoods, and country and village churches are found in many localities. There are but few people so situated that they can not reach a church or school-house, though the country is not settled—so as to make these things as common as in the West or North.

In the river counties, the large majority of the people are Africans—a docile people, inoffensive if let alone, and not improperly advised; naturally indolent, but small planters have worked them profitably, especially planters who will work with them.

Immigrants' Cotton Plantation.

We will suppose that three persons, able to work, compose the family, and the location on good upland—arrival on the plantation 1st January:—

Outfit.—One mule worth	$150 00
One plow and gear	8 00
One harrow, iron tooth	4 00
One ax and three hoes	2 50
One light wagon for one horse	50 00
	$214 50

We will give them 30 acres for cultivation, which would be divided as follows:—

9 acres in cotton.
15 acres in corn.
3 acres in oats.
1 acre in sweet potatoes.
1 acre in early field peas.
1 acre in Irish potatoes, cabbage and other vegetables.

If cotton or corn had been planted on the land the previous year, the two hands could clear off the ground for the plow as fast as the one could plow it. Giving the month of January for repairing fences and fixing the place up, plowing might be commenced on the 1st of February.

1st. The three acres for oats should be plowed well, and the oats sowed and harrowed in, which would take about three days. Then the garden spot plowed deep and put in good order for planting, first, garden peas, Irish potatoes, sow cabbage seed, lettuce, and radishes, all of which could be done in one day.

Feb. 5th. Commence plowing the ground for corn, which should be done by throwing up ridges from 3 to 5 feet apart, according to the strength of the soil; say, the preparation of the corn land would be completed by the 1st of March. Then ridge up the cotton land in same way, plowing deep and thoroughly, which could be completed by the 12th of March, allowing for some rainy days.

Mar. 12th. Plant corn, dropping from 2 to 3 feet apart in the drill, covering it with the plow, and harrow off; all of which could be done in about five days.

Mar. 15th. Lay down five bushels of sweet potatoes in a long bed, say three feet wide, each potato being put down so as not to touch the others; cover them over with light earth, all of which can be done in half a day by one hand.

From 15th March to 10th April might be devoted mostly to gardening and preparing potato ground.

April 10th. Plant cotton, which would take about two days.

April 12th. Commence working in corn, and all of April and to 10th May may be devoted to culture of corn and garden, not forgetting about 10th to 15th to plant the acre of speckled peas.

May 10th. The cultivation of the cotton crop would commence; one hand, running a side scraper on each side of the cotton, could go over the nine acres in two days, and the plow could be laid aside, and the three hands could scrape the nine acres of cotton with the hoe in about three days, and the plow could then be used to mold the cotton; whilst the two hoe hands followed, drawing the dirt around the stalks and thinning the cotton to a more perfect stand. Plow and hoe work taking about five more days. After this work was completed the corn would require plowing again, and the oats could be cut and stacked or housed. The plowing of fifteen acres of corn would take about ten days, all of which work could be completed by 1st June. After 1st May, in all wet weather, the sweet potato ground being prepared, the plants should be drawn from the bed and set on the ridges; this could be kept up till 1st July, and even the oats patch could be planted after the crop was taken off, in sweet potatoes, corn, or field peas, and there would be plenty of leisure to do it. About

10th of June the cotton would require a plowing, and the hoes should follow and take out what weeds were left in the drill; all of which work could be completed in six days.

June 15th. Plow the corn again, and plant, either in drills or by sowing broadcast, the yellow field pea, all of which would not require over 8 or 10 days, and the corn could then be laid by.

About 1st July, run the sweep through the cotton to clean the middles, which could be done in three days, and the hoes could pass over it in about same time. If it required any more work it would not exceed three days, about the middle or last of July, to run the sweep once or twice in the middle. Thus the work of cultivation would be completed early in July, after which all the crops could stand in the field till October or November. Turnips ought to be planted, if ruta bagas (which are the best), about 1st July, and if other varieties, in August or 1st September.

Cotton will stand longer in the field without injury than any crop grown in the United States. Before the war half the cotton crop was gathered after the 1st of November, in the healthy season of the year, and planters were picking cotton, when from 12 to 15 acres were planted to the hand, till 1st March. The contractors, for saving abandoned cotton in 1863, picked the crop raised in 1862, in March and April. An immigrant raising one quarter of a crop, could put off gathering it till January if he chose, and could gather when all the cotton was open, the product of duct of three acres in one month, even if it was three bales.

The results of the foregoing plan of planting would be, on uplands, say—

5 bales of cotton, worth	$500
15 acres corn, 25 bushels per acre	375
Gross crop	$875

or double that on alluvial land. Sweet potatoes, oats, and other crops, would go far toward supporting the family.

The second year the immigrant could plant 3 acres of wheat, and enlarge other crops, raise his own pork, and make the place support the family; still planting the same corn and cotton. Or, if he was disposed to enlarge his planting, he might hire one or two negroes, and plant double the quantity of cotton, letting the negroes gather cotton from 1st September and the immigrants joining them 1st October, or as soon as the weather was cool and pleasant. The third year, the immigrant could put in six acres to the hand for his family, and work through the season with safety, as he would then be fully acclimated.

Very respectfully,

J. H. D. BOWMAN.

F. B. GODDARD, Esq., New York.

The postmaster at Brookhaven, Lawrence County, writes, July 30, 1868:—

* * The lands in this county consist of bottom land, at 75 cents per acre (average price); table-land, at 50 cents per acre; rolling land, at 25 cents per acre; and pine woods at 12½ cents per acre. Good water throughout the county, and very healthy. Crops-cotton, corn, wines, all kinds of fruit, pine lumber, rice and tobacco. The people are intelligent and law-abiding, and rowdyism is scarce.

A correspondent writes from—

BROOKVILLE, NOXUBEE COUNTY, MISS., *August* 5, 1868.

By reference to the map you will find this place situated on the Mobile and Ohio Railroad. The country is rich in prairie and "post oak" lands, that sold before the war from $25 to $40 per acre. This belt of prairie land is about 40 miles long, and say 20 miles wide, extending to the Tombigbee River. * * Now worth $7 to $15 per acre.

1st. Summers warm, but not oppressive; nights cool, good breezes; winters mild, seldom cold enough to freeze water; *very healthy.*

2d. No mineral or coal; timber plenty.

3d. Cotton and corn the chief staples, 250 pounds of lint cotton to the acre, and 30 bushels of corn, the average crop. Corn generally sells at 50 to 75 cents per bushel. Good for 12 to 15 bushels wheat to the acre, and all small grain. Every description of vegetable and fruit.

4th. 180 miles from Mobile, accessible by railroad or river navigation.

5th. Schools and churches abundant.

6th. The people native born Southerners. This county contains about 12,000 whites and 14,000 blacks, formerly *all* slaves, now worthless as members of society, and not good laborers. They work very well in the field, but will not keep up the farm repairs and care for stock.

The people are polite and courteous, and would hail new white settlers or immigrants among them, rent them lands, work on shares, or hire by the month.

Having answered your questions, I will state that I am a planter, owning 3,000 acres of land, 2,300 tillable, which was worth $40 before the war, and sold for that (a part of it) in 1858. It is 2½ miles from Brookville, a thrifty railroad town, ten miles from Macon, the county seat, and twenty miles from Columbus, a town of 6,000 inhabitants. I raise corn and cotton, and worked 147

black laborers last year. This year some less. Give them one-fourth of all that is made, furnishing food and lodging.

This labor will not do. They work well (*i. e.*, some of them), but neglect the stock and kill off the hogs. This is done by the idlers, who will not take permanent work.

PORT GIBSON, MISS., *August* 3, 1868.

FRED. B. GODDARD, Esq.:—

SIR: Having resided in this and one of the adjoining counties for many years, engaged in the practice of law, my acquaintance is very general, both with the people and the lands, and in fact with all the subjects upon which you solicit information.

Just at this time lands have no market, and no sales are being made, although all the lands in the State are "for sale." One cause of this is the almost entire absence of capital and industry, resulting from the war.

* * * The *lands* are excellent. Cotton and corn, peas and potatoes (Irish and sweet), are the chief products; but the soil and climate are well adapted to a great diversity of crops. Labor is exceeding low, and can be had by paying employees $5 or $6 per month. Cotton culture, by Northern or Southern men, pays a splendid profit when conducted with skill, and energy, and sufficient means. Very little means or skill is necessary; the main desideratum is energy. The negroes will work well, *if well paid.*

Timber excellent and abundant. Health first-rate. Markets, New Orleans, Cincinnati, Memphis, Louisville, &c., accessible by Mississippi River and railroad.

Respectfully yours,

J. S. MORRIS.

Mr. P. R. LEATHERMAN writes from Woodville, Wilkinson County, in the southwestern part of the State, August, 1868:

Cotton has hitherto been the chief export from this country. It was deemed the most valuable product we could raise, because the soil, climate, and kind of labor we had, were all well adapted to its culture. And our labor was not well suited for any other employment; for, be it known to all men, that the culture of cotton, is a *very* simple process; for which reason alone, the negro was better suited to that occupation than any employment which might require the least ingenuity and skill. This is the reason we devoted all our energies to the culture of cotton.

Let no one, therefore, imagine that the culture of cotton is not adapted to the labor of white men from the North and from Europe. With their industry and intelligence, they would very soon be able to produce two or three times as much cotton to the

hand as the negro can, and would easily improve the quality of the article produced. It is well known that the cotton plant is susceptible of great improvement, both as to the quantity which each stalk will yield, and the quality of the lint.

* * * * Away with the foolish belief that negroes only can raise cotton profitably; it is the only thing they are capable of raising successfully, because its culture is simple and adapted to the labor of any person either male or female. Little boys and girls can assist in its cultivation.

* * * * Thousands and tens of thousands of acres of our best lands are lying uncultivated now, and we are ready to sell them at low rates to those who wish to purchase, or farm them out to those who are not able to buy, and furnish them with every facility for making crops.

Mr. Fleming Hodges, a well known and respected citizen of Mississippi, who, before the war paid taxes on more than half a million of dollars which he had accumulated as a tiller of the soil, thus writes us from Okalona, Chickasaw County, August 4, 1868:—

* * * * I have about 5,000 acres of fine improved land; 3,000 acres are the finest upland in this vicinity, fertile, convenient to railroad, and the most healthy country I was ever in. Now for my object; I want 100 families of good laborers to locate on my lands.

I will furnish their outfit for the first year, and lease them my lands as long as they wish them. I know the value of this kind of proposition from most men, but I refer you to, &c., &c., who know me well by character, and can tell you, &c.

Mr. T. A. Hazes, of Okalona, writes on the 31st of July:—

* * * * After reading carefully your circular and letter, my neighbors said to me, "Colonel, write to Mr. Goddard, and say for us all, that Mississippians would dispose of two-thirds of their lands to English, German, or any other good class of emigrants, at nominal prices, and do all in their power to give them kindly aid—and God bless his work."—August 6th. I suspended this letter, commenced on the 31st of July, at the request of Dr. Bretney and Mayor B. H. Shephard, who were delegates to a Railroad Convention called at Selma, Ala., in order that I might hand you the prospectus of a new railroad, to wit, running from Memphis to Selma, *via* Holly Springs and Okalona. It is now determined upon, and the survey of said road will commence next week. It will be chartered as the "Memphis, Holly Springs, Okalona and Selma Railroad," connecting at Selma with the Charleston and Savannah Railroad.

They propose to enter all lands contiguous to this road as stock, at $1 to $3 per acre; to give to emigrants twenty acres per family anywhere on the line of this road, and to sell them as much, in addition to this twenty acres, as they wish to buy at the rates at which it is entered.

It is our duty to say, frankly, that among the numerous letters we have received from the Southern States are some, written apparently in a candid and impartial spirit, which indicate that in some sections a strong prejudice exists against Northern men who come there to settle. We do not believe that the better portion of the Southern people encourage violence or discourtesy toward respectable and industrious Northern immigrants; but where this adverse feeling prevails, it has been, in effect, a license to the lawless element to commit rough deeds with impunity. We refrain from publishing these communications, believing that, as we have before stated, a new era is about to dawn upon the South, and that the good sense of the Southern people will, at any hazard, suppress lawlessness, in view of the disastrous effect it must have upon their interests and prosperity.

TENNESSEE.

TENNESSEE is one of the southern middle States, bounded by Kentucky and Virginia on the north; by North Carolina on the east; Georgia, Alabama, and Mississippi on the south; and the Mississippi River on the west separates it from Missouri and Arkansas. It has an area of 29,184,000 acres. Its total population in 1860 was 1,109,801, of whom 283,019 were colored.

The surface of Tennessee presents a more widely diversified appearance than that of any other of the middle States. The eastern portion is mountainous, gradually diminishing into a hilly region, full of beautiful and healthful valleys; then softening away into a gently-rolling country of exquisite loveliness and fertility, amply watered by a thousand streams, affluents of the Tennessee and Cumberland, and finally becoming almost level in the western portion of the State.

Eastern Tennessee is too rugged and mountainous to be well adapted to general agriculture, but is rich in mineral resources, such as coal, iron, copper, zinc, lead, &c., together with a great variety of excellent timber. It is, in some portions, well suited to stock-raising, and is noted throughout the United States for its mild but pure and bracing air.

The rich and fertile soil, mild winters, and prevailing healthfulness of Middle Tennessee, with its cordial and hospitable people, its well organized system of schools and churches, and other attractions, offer the emigrant great inducements to come and participate in these advantages, while the level prairie lands of the western portion of the State, with their great depth of rich, black, and fertile soil, yielding cotton, tobacco, &c., in great abundance, also claim his attention.

The State is pre-eminently favored with facilities for water

communication in her noble river system. The Mississippi washes her western border, and the Tennessee and Cumberland, with their large navigable tributaries, afford a general outlet for the productions of nearly every portion of the State.

"THE CUMBERLAND TABLE-LANDS OF TENNESSEE.—The agricultural abundance of this region is indicated by the prevailing prices of farm produce. At Tullahoma, midway between Nashville and Chattanooga, on the railroad, wheat was sold last fall for $1.50, when it was selling in the interior of Minnesota, where little else but wheat is grown, for $1.60 per bushel. At the same time corn was 50 to 60 cents, potatoes 50 cents per bushel, butter 20 cents per pound, eggs 15 cents per dozen, beef 6 to 8 cents per pound at retail, and cows $18 to $40 each. It is reported that the ground was covered with snow but eight days last winter, and that at no time did the snow remain on the ground more than 48 hours, the frost penetrating not more than two or three inches. Farmers can labor out of doors nearly all winter, and plowing is interrupted only a small portion of the time. Coal, iron, and timber abound, with limestone, sandstone, and hydraulic lime; most of the land is comparatively level and moderately fertile; the grasses flourish; all ordinary farm crops are grown; and fruits, particularly peaches, are a sure crop. Good farms in this county can be bought at $5 to $10 per acre. Wild lands can be had as low as one dollar per acre."

A writer at Memphis, referring to the advantages Tennessee offers to the immigrant, says:—

"Bring them acquainted with the quantity, cheapness, and productiveness of our lands, and that in our mountains lie imbedded vast treasures of mineral and inexhaustible quarries of stone and beds of coal; that our hills and valleys are abounding with the most magnificent and valuable forests; that the number and extent of our navigable streams are scarcely to be excelled; that mill and manufacturing sites, and the requisite raw material is in such close juxtaposition as to afford the greatest convenience and economy, together with that entire freedom from the inconveniences, hardships, privations, and perils incident to the pioneer and border life of the far West and other new countries, and that there awaits them a cordial welcome and generous hospitality which the people of the Southern States know so well *how* and *will* extend to men of every clime and tongue, who come with the honest purpose of co-operating and aiding them to the extent of their means and influence, in the restoration and main-

tenance of good government; in rebuilding the waste places; in casting aside the mantle of blight and desolation that covers this fair land, which once bloomed as a rose; by the development of her agricultural and other resources; and by the encouragement, patronage, and practice of whatever is most promotive of the mutual welfare and prosperity of himself and the community in which he may have cast his lot and sought his citizenship."

NASHVILLE, situated on the navigable waters of the Cumberland River, 200 miles above its junction with the Ohio, is the capital of Tennessee. Five railroads radiate from the city, connecting it with various important points; it is, generally, a well-built city, and possesses a number of excellent educational and scientific institutions. Its population in 1860 was 23,715.

MEMPHIS, the port of entry of western Tennessee, is situated on the Mississippi River, in Shelby County. The city is a very active business point, and a great cotton mart. Its population in 1860 was 22,625; and its shipments of cotton during that year, were more than 400,000 bales. It is a great railroad center, and rapidly increasing in population.

KNOXVILLE is the principal commercial center of East Tennessee; it is situated on a hill upon the north bank of Holston River. Its population in 1860 was about 8,000.

We give below, portions of the Report of the Department of Agriculture, prepared by Mr. J. R. DODGE, and submitted to Hon. HORACE CAPRON, Commissioner, March 31, 1868, for publication:—

PRICE OF LANDS AS COMPARED WITH VALUE IN 1860.—Our returns from Tennessee indicate a general decline of 15 to 20 per cent. in the value of farm lands as compared with the census estimates of 1860, though several counties report no appreciable change, while others report an active advance of from 2 to 15 per cent. The heaviest decrease is reported from Davidson and Henry counties, being about 50 per cent., though the former reports few sales at reduced rates, unless under compulsion, while in the latter, the decline is attributed to "the dilapidated condition of houses and fencing, and the wild growths consequent upon the war, together with high taxes," &c. Weakley and Meigs report 40 per cent. decline; Rhea and Lincoln, 33; Haywood, 30; [illegible]kins, Monroe, Polk, Coffee, Perry, 20; Hickman, 16; Bled-

soe and Giles, 10; Greene, 3 to 5; while Williamson, Union, and McNairy remain at about the same figure as in 1860. Montgomery reports 2 per cent. increase; Sevier and Campbell, 10 per cent.; and Marion from 10 to 15 per cent. Our Rhea correspondent says:—"The great bulk of land in this county for the last 50 years, has been in the hands of a few owners, and it increases in price when there is little tax to be paid, and decreases when the taxes are greater; hence the present decline." The same general causes, however, which have tended to depreciate real estate, and particularly farm lands, in the Southern States, have operated in Tennessee, though not to the same extent, nor is it probable that a return to former values will be so long delayed, there being less necessity to sacrifice, and not so strong a disposition to sell at any price.

PRESENT VALUE OF LANDS.—Wild or unimproved lands are variously quoted, from six cents per acre upward, according to location, quality, and capabilities. Much of this class of lands in the eastern counties is mountainous or hilly, with coves of rich lands, upon which sheep and cattle grow fat from May until September. On these mountain lands there is considerable valuable timber, and when cleared, much of the land is very productive of corn and other crops, and suited to grazing purposes. In Greene County, such lands are worth from 6 cents to $1 per acre; in Hawkins the average is given at $3 per acre; Sevier, 50 cents to $1. In Union, ridge land, thin-soiled, capable of producing 20 bushels of corn, or 8 bushels of wheat, $2.50 per acre; Campbell, $1.50—mountainous, variety of soil, a good portion susceptible of improvement, adapted to the growth of clover, timothy, &c. Lands of the same general character in Monroe and Polk, 50 cents to $1 per acre; Meigs, $2 per acre—broken, gravelly, and generally poor; Rhea, $1 to $4—varying much in quality, being second bottom, upland, ridge, and mountain lands, generally well timbered, with good water, and healthy, and capable of producing corn, wheat, barley, &c., and excellent for fruits and tobacco. Bledsoe, about 50 cents per acre—soil thin, but good for grazing, and for raising vegetables when cultivated; Marion $1 per acre, in great quantity—red, sandy loam, rich and strong—will produce grain and fruit. Coffee County, $1 to $3, comprising half the county—table-lands—will produce corn, wheat, rye, oats, potatoes, vegetables, &c.; well managed valley and hill lands, without manure, will yield 50 to 60 bushels of corn, and 20 to 25 bushels of wheat to the acre. Lincoln, $1 per acre, embracing an area of 100 square miles—soil thin, needing lime; fruits, especially the peach, grow to perfection; these lands lie 200 to 300 feet above the bed of the Elk River, on which are situated the best lands of the county. Giles—large tracts in timber at from $1 to $5 per acre. In Montgomery, Stewart, and Dickson, there are large

tracts of what are called "furnace lands," said by our correspondent to be comparatively valueless, except for coaling and sheep-raising; they are high and well timbered, however. Hickman reports as low as 25 cents per acre—soil generally thin, but timbered and capable of improvement. Perry, $1 per acre—bottoms level and exceedingly fertile, upland rolling, and tolerably productive; 75 per cent. of the whole susceptible of improvement. McNairy, $5 per acre—one-third good bottom, two-thirds for grazing and timber. Haywood, $3 to $8; the greater portion in the Hatchie and Forked Deer river bottoms subject to overflow, and thus rendered unfit for farming purposes, yet they abound in the finest white-oak and cypress timber; if the rivers could be leveed and the overflow regulated, these bottoms would make the finest farms, the soil being very rich and fertile. Weakley County, $4 to $15 per acre—capable of producing from 30 to 50 bushels of corn per acre, 600 to 1,000 pounds of tobacco, 15 to 20 bushels of oats, 10 to 20 bushels of wheat, 600 to 1,000 pounds of seed cotton, and vegetables in abundance. In Henry County our correspondent reports little land under this head, the county being well settled up; the price for such as may be found, he averages at $7 per acre.

MINERALS.—The mineral resources of Tennessee are developed to but a limited extent, though her hills and mountains contain stores of iron, of coal, and of copper, of zinc, of sandstone, and of the finest marble, awaiting the capital, enterprise, and labor, that shall dig out and utilize these dormant mines of wealth. Iron ore is found in great abundance in nearly all the counties of eastern and middle Tennessee; copper, in Greene, Sevier, Polk, Perry, and other counties; coal, in the mountains of Campbell, Rhea, Marion, &c.; some gold is reported in Polk; salts, in Greene and Hawkins; lead, in Perry; fine marble and building stones, in Hawkins, Campbell, Monroe, Meigs, Giles, and Williamson; thick stratum of shale, in Coffee, &c., &c. The timber resources are also extensive, embracing a great variety, and many of the finest quality of forest-trees—hickory, the various oaks, poplar, walnut, ash, beech, chestnut, locust, cedar, sugar, pine, &c., which cover a large portion of the vast tracts classed "wild or unimproved lands," and to be purchased at the figures named above for such. The soil ranges from that of the deep rich bottoms, of exhaustless fertility, to light and hilly uplands, which require high culture to become productive.

IRON, &c.—In a number of counties the iron interest has been partially developed. In Greene one furnace is in operation, and a Northern company have purchased several thousand acres of ore lands, and will soon have extensive works completed. Near the town of Greeneville there is a bed of sulphate of iron, from which copperas was made during the war, and where even the clay is impregnated with the mineral. Our Montgomery correspondent

says "that within twenty-five miles of Clarksville there are from ten to twenty furnaces lying idle for want of capital; most of them were burned during the war, and the proprietors being unable to rebuild and run them, would sell out very low."

The zinc of Greene County is said to be very rich; during the war Epsom salts were also made to some extent in the mountains. In Hawkins, our correspondent states, "there is an underground stream of salt water traversing the valley, which has been tapped at several points, at one of which the manufacture of salt has been successfully prosecuted for a number of years, though not upon a large scale; but it is thought that, with capital and enterprise, it might be made to rival the salt wells of southwestern Virginia in the production of this valuable product. * * * A most beautiful quality of marble is found at various points in this county, one quarry of which was worked to a considerable extent before the war. Much capital might be profitably invested and many laborers usefully employed in the manufacture and preparation for market of the two articles named—salt and marble—as well as iron, the ore of which is present in the mountains." Our Marion correspondent says "the quantity of bituminous and semi-bituminous coal and iron ore in this county is unlimited, with but little development of the former and none of the latter, though the inducements are great, produce being abundant and transportation good and improving."

A number of our reporters speak of the many eligible water-power sites to be found upon the innumerable rivers and mountain streams of the State.

Very few counties of this State can be said to make a specialty of any one crop, a mixed husbandry generally prevailing. Wheat, corn, oats, potatoes, sorghum, &c., are grown successfully in all sections, while cotton and tobacco are largely cultivated in some localities. In a majority of counties corn and wheat are the leading crops, the former being fed largely to stock. In Monroe "corn and wheat are the staples; the best hommock and intervale lands produce, with good cultivation, 40 to 50 bushels of corn to the acre, at an average cost of 20 cents per bushel; and when well put in on a good clover sod, wheat yields 15 to 30 bushels, at a cost of $4 per acre, including seed." Corn is made the chief crop, because the surest. Corn is also the specialty in Rhea County; "it requires a man and a horse, on an average, about four days' labor per acre to make corn, and the usual yield is 30 to 35 bushels per acre." Our correspondent says of the profits:—

"This year a man's work four days with horse, &c., would be $6; one acre of corn, say 35 bushels, at 60 cents, $21; making a net profit of $15 per acre. A man can easily till 20 acres in corn, giving a net profit of $300, besides harvesting his small grain and hay."

Bledsoe reports 25 bushels corn and six bushels of wheat as the average per acre. Marion "bottom lands yield about 30 bushels of corn, upland 10 bushels, but can be made to produce three times as much by proper cultivation, the mode of culture being of the lowest grade; except in a few instances the soil is not broken up or disturbed below two and a half to three inches, and not two-thirds of the surface." Our Coffee correspondent says:—

"Corn for the rearing and fattening of stock has for some time been our principal crop, and hogs the largest item of profit from it. Wheat, as an article for export, is receiving more attention than formerly."

Stock-raising is also a profitable branch in Williamson County. In Union, "corn pays $10 per acre, wheat $10, oats $3, potatoes $15, and sorghum $30." In Giles County, "cotton has been a specialty for the last three years. With imperfect culture, 1,000 to 1,200 pounds of seed-cotton per acre are produced, but those engaged in the culture for the past two years have found the debtor side of the balance-sheet against them. * * Corn, wheat, rye, oats, barley, hemp, flax, tobacco, sorghum, potatoes, &c., grow to perfection; 40 to 50 bushels of corn and 15 to 25 bushels of wheat per acre being raised." McNairy: "Cotton is the special crop, though our soil is well adapted to corn, but not so well for wheat; average yield per acre, 1,000 pounds seed-cotton, 40 bushels corn, 10 bushels wheat; the profit on cotton is small, and more could be derived from grain and stock, if attention were turned to them." Lincoln County: "Cotton, corn, small grains and blue-grass are the chief crops. Cotton has been grown at a loss the present year. The crop of the county reached 6,000 bales in 1867, but for 1868 it is thought there will not be sufficient land planted to raise 1,000 bales. Our farmers have not recovered their hog crops since the war, in consequence of which, in connection with the closing up of distilleries, we have a large surplus of corn, which is now selling at 25 to 35 cents per bushel, there being no means of cheap transportation. Of forty distilleries in the county not one is now in operation, owing to the heavy expenses under the law." Our Montgomery correspondent writes:—

"Tobacco has been, but stock-raising probably will be, our specialty, as the opinion is now general that there is no money in the former."

In Henry County, tobacco, wheat, and corn, were the chief crops before the war, but cotton has since taken the place of tobacco, but for the future our correspondent thinks the latter will resume its old position.

"One good hand can cultivate two and a half acres of tobacco, 15 acres of corn, 10 acres of wheat, three acres of herds-grass, and one in late potatoes, with the following result:—

2½ acres tobacco, at 1,000 lbs. per acre, 2,500 lbs. at 8 cents.	$200
15 acres corn, at 40 bushels per acre, 600 bushels, at 40 cents.	240
10 acres wheat, at 8 bushels per acre, 80 bushels, at $1.50....	120
3 acres grass, 3,000 lbs. per acre, 9,000 lbs., at ½ cent.....	45
1 acre potatoes, 60 bushels per acre, at 75 cents.....	45
	$650
Estimated expenses not more than.....	150
	$500

"The labor to raise the two and a half acres of tobacco is not more than is usually required to raise that amount of corn, but the labor in suckering and worming is much greater. The great advantage in raising this crop lies in the fact that the corn crop is harvested before there is much to do with the tobacco, except planting. You house it about the first of September, at which time you are ready to sow your wheat; by the first of October all farmers ought to have their wheat in, and be ready to gather the corn; this done, your tobacco is ready for stripping and preparing for market, so that an industrious farmer can all the time be busily engaged with his crops, except a few weeks in the winter."

Peanuts are extensively grown in Perry County, yielding from 50 to 100 bushels per acre, worth from $1 to $3 per bushel, while the haulm is preferred by horses and cattle to any other kind of fodder. One hand can cultivate, gather, &c., from first of May to first of December, 10 acres of these nuts. Our Henry correspondent writes as follows:—

"There is no finer fruit region than that embraced by the State of Tennessee. Our winters are cold enough to put a stop to vegetation sufficiently long to enable the tree to recuperate, and yet not so severe as to endanger the life of any but the tenderest species. Apples, peaches, pears, quinces, plums, cherries, apricots, nectarines, figs, grapes, berries, melons, &c., may be raised with the greatest ease in abundance. Wild grapes are found in vast quantities in the ridge and mountain lands, and also upon the table-lands, upon which in some counties, they grow better than upon the hills. Cultivated varieties have been successfully grown in some localities, while in others the results have been indifferent, and in some cases, discouraging."

CORRESPONDENCE.

From *Covington*, Tipton County, Mr. Peyton J. Smith writes us as follows:—

We have a very rich, warm soil, very productive. Corn,

wheat, oats, rye, barley, grasses, clover, peas, pumpkins, melons, vegetables, and roots generally, grow to perfection. Tobacco does well. Cotton grows finely, and has been the main staple with us. Our county is mostly ridge land, very rich. Our Hatchee and Mississippi River bottom lands are unsurpassed for fertility, and are very healthy. Best improved farms near this place, $20 to $30 per acre, but good farms can be bought for from $8 to $15 per acre farther out. Woodlands can be bought at from $2.50 to $8, all excellent, tillable land. * * * We are exceedingly anxious to have more white labor; we are sadly in need of skilled labor. Farm laborers can readily get from $15 to $20 per month the year round. * * * The general health of our country is as good as that of any other I know of. * * * We have no coal or minerals, but we have the finest and largest timber in our forests I know of this side of California. * * * We have fine schools in every neighborhood. A majority of our county population are natives of Tennessee, Virginia, North and South Carolina; a goodly number of Northern men have settled here since the war, and are well received and doing well. We, as a people, are exceedingly anxious to have our forests cleared up and settled by industrious white people, and every advantage is shown them by our citizens. We have homes, and food, and labor, for 5,000 immigrants, and a welcome for them. * * *

Mr. JOHN P. LONG, of *Chattanooga*, in a letter of August 8th, 1868, says:—

* * * * Laborers are in demand for farm labor, skilled mechanics, and house servants. * * * * Mountain lands, well wooded and fertile, can be had for $1 per acre; valley lands from $3 to $20. There are no public lands in this country subject to entry. * * * * In her mineral resources this section is unrivaled. The principal feature is coal and iron. * * * * The price of corn has ruled this year from 80 cents to $1, and wheat from $1.75 to $2. Religious and school advantages good. * * * * Capital and industry well directed can not fail to meet its just reward, and I have the testimony of hundreds of Northern men that, in regard to climate, this region is unrivaled. * * * *

Mr. J. T. MILLS writes from *Gallatin*, August 7th, 1868:—

* * * * The average value of land in this State is $7 per acre, and of this county (Sumner) $10. * * * * There is a constantly increasing demand for intelligent white labor. * * * Fully nine-tenths of the population of Tennessee are natives of the United States. The foreigners are nearly all Germans and [illegible]ish, who generally live in the cities and large towns.

Mr. J. C. MINKLER writes from *Madisonville*, August 6th, 1868:—

* * * * We have some very fine river bottom lands at from $15 to $50 per acre, and the mountain lands can be had from $3 to $10 per acre. The climate and soil is the best I ever saw for the culture of grapes. * * * * The Georgia and East Tennessee Railroad runs across the county for 15 miles. * *

Mr. JAMES PYBASS, of *Bolivar*, says, August 5th, 1868:—

* * * * Lands, very good, price about $10 per acre. We need people of small capital that work. * * School and religious advantages as good as any in America. Population nearly all American.

Mr. C. H. JONES thus writes, August 7th, 1868, from *Clarksville*, Montgomery County:—

* * * * Price of lands range from 50 cents to $6 per acre, suitable for sheep-raising, situated in remote parts of this and Stewart County. Farming lands are worth from $10 to $60 per acre, according to soil, location, &c. * * * * Farm labor is needed, and commands from $8 to $25 per month, board and lodging included. Gardeners and other help is wanted, such as cooks, &c., and liberal wages will be paid for same. Climate and healthfulness unsurpassed by any of the States. Iron and timber abound, and plenty of coal contiguous. Tobacco, wheat, and corn, are the prevailing crops, and command good prices and ready sale in this market. Our facilities of transportation are railroad, river, and wagon. Schools and churches convenient in almost all neighborhoods. The population consists mostly of natives, interspersed with Irish and Germans.

The Postmaster at *Bell's Depot*, Haywood County, writes, August 1st, 1868:—

Our county is diversified, mostly rich, level land, producing, on an average, 6 bbls. corn, or 800 lbs. seed-cotton, or 15 bushels wheat. Price from $20 to $30 per acre. * * All kinds of labor in demand; farm hands get $25 per month, carpenters from $2 to $3.50 per day. * * The greatest demand of this county is for manufactories. * * * *

From *Shelbyville*, Mr. CHARLES W. CHURCHILL writes, August 10th, 1868:—

Our county (Shelby) is the fourth richest county in the State, and affords peculiar advantages to emigrants, as every post-

office in the county is on good roads, and easily accessible to railroads. Good farm hands get from $1.50 to $2 per day; the supply is rather limited at present. I think, throughout the country, that general laborers will be more acceptable than any other class, as there are a good many roads now in progress. * * * * Its schools and religious advantages are better than a great many other cities of much larger population.

A letter from the Treasurer's office of the Cincinnati, Cumberland Gap, and Charleston Railroad Company, says:—

* * * * We are making every effort we can to form and get up an Emigration Society in East Tennessee, and think we shall be able to accomplish the end in view.

Messrs. ARRINGTON, FARRAR & WEAKLEY, of *Nashville*, say:—

* * * * Mr. Weakley, of our firm, has been in nearly all the Southern States, and thinks he has seen in none, soil or climate that will compare with Tennessee. * * * * We want white labor; send them to us; they will get good wages, and if they wish lands, can buy them cheap. * * * *

Mr. W. B. DONAHO, of *Memphis* (August 24th, 1868), writes:—

* * * * Let me say to you that never did such fields present for the readiest and largest remuneration to capital and enterprise as now in Tennessee, Arkansas, Mississippi, Alabama, and Georgia, in farming lands, manufacturing, or mineral property. * * * *

Mr. W. H. STILWELL, Postmaster at *Humboldt*, says, August 8th, 1868:—

* * * * Labor is needed. White men should come to buy homes and to cultivate them; though any class, even the poorest, will find constant employment; wages $15 to $20 per month, or $1 per day, with board. But we need men who can buy small farms and work them. Only about one-eighth of our land is in cultivation, and every acre is capable of tillage. Land —wild—is worth from $10 to $20 per acre in the western division of the State. Cultivated and improved, $20 to $30. Many second class lands can be had much lower. * * * * Our people need immigration; the vast tracts of unclaimed and fertile lands need opening and cultivation. * * * * No more inviting field can be found.

Mr. H. H. INGERSOLL, writing from *Greenville*, Greene County, August 5th, 1868, says:—

The air is pure, free from any miasmatic vapors; chills and fever almost unknown. The heat and cold are neither so extreme as in the Northern States. There is a cool mountain breeze, and nights never too hot for refreshing sleep. Cool springs are numerous, &c. * * * *

I am a Northern man; born and reared in Ohio: have settled here since the war, and I take pleasure in assuring you that East Tennessee is favorable to Northern immigration. We are cheerfully received, and welcomed. The "*Southern feeling*," is gone from here, except it lingers in the minds of a few fossils, who are "longing for the *flesh-pots* of Egypt." Further: In all my life, I have never been in a more quiet, peaceable, law-abiding community than where I now live, Massachusetts not excepted. Mind, I speak now in this letter of East Tennessee. Affairs in the other parts of the State, I know, are not what one could desire, but even there, a little time will make all right.

KENTUCKY.

THE first emigrant to Kentucky was the renowned pioneer, DANIEL BOONE. Attracted by glowing accounts of the loveliness of this region, then almost untrodden by the foot of civilized man, and abounding in such game as the buffalo, the bear, and the beaver, he determined to brave the Indian perils and gratify his love of adventure by exploring its vast solitudes. "It was," he says, "on the first of May, in the year 1769, that I resigned my domestic happiness for a time, and left my family and peaceable habitation on the Yadkin River, to wander through the wilderness of America in quest of the country of Kentucky." After two years of romantic and perilous adventure, Boone revisited his home in North Carolina, to return again to Kentucky in 1775, accompanied by his family. He says: "We arrived safe, without any other difficulties than such as are common to this passage, my wife and daughter being the first white women that ever stood on the banks of Kentucky River."

Nothing in Indian history surpasses in thrilling interest the experiences of the Boone family in their struggles with the savages, their repeated capture, hair-breadth escapes, &c., &c. Boone was of much service to the growing settlements, from his bravery, his intelligence, and his consummate knowledge of the Indian character. Kentucky was now made a county of Virginia, and the first court was held at Harrodsburg in 1777. In 1792 it was admitted into the Union as a sovereign State, embracing an area of 37,680 square miles, equal to 24,115,200 acres. In 1860 its population was 1,155,684, of which 236,167 were colored.

The surface-features of Kentucky may be thus generally described: The Ohio River winds along its northerly bounda-

ries for nearly 600 miles, to empty into the Mississippi at the northwestern corner of the State, and divides it from Ohio, Indiana, and Illinois. Upon the west the Mississippi bounds it for about 80 miles, separating it from Missouri.

In the southeast, the Cumberland Mountains and their spurs give to that part of the State a broken and rugged appearance, without any very lofty elevations. This region is extremely healthy and is well wooded.

Farther westward and northerly, a large portion of the State may be characterized as an undulating upland, more or less abounding in bold features, with frequent streams, and possessing a healthful climate and an excellent soil.

Still farther to the west, and southerly, occupying much of the tract between the Cumberland and Green rivers, are the "Barrens," so named by the early settlers, generally spoken of as "poor land," and scantily timbered. Thence, westward and northerly, the diversified features are gradually merged into the low plains which skirt the large rivers.

"The most productive soil of Kentucky is that of the blue limestone formation; and in the neighborhood of Lexington and toward the Ohio, the country based on that route is said to be the garden of the State. The line demarking this region passes from the Ohio round the heads of Licking and Kentucky rivers, Dick's River, and down Great Green River to the Ohio; and in this great compass of above 100 miles square, is found one of the most fertile and extraordinary countries on which the sun has ever shone. The soil is of a loose, deep, and black mold, without sand—on first-rate lands, from two to three feet deep, and exceedingly luxuriant in all its productions. It is well watered by fine springs and streams, and its beautiful climate and the salubrity of the country are unequaled, the winter, even, being seldom so inclement as to render the housing of cattle necessary."

Kentucky is most bountifully supplied with noble rivers and useful streams, affording remarkable facilities for intercourse and commerce, and much valuable water-power for manufacturing purposes.

"The coal-beds of Kentucky are continuous of those of Illinois and Ohio; they cover 10,000 or 12,000 square miles, and are very accessible. Iron is equally abundant in the State, and it, too, is comparatively neglected, but from its deposits being mainly on or near navigable streams, it must inevitably become a source of future wealth to the country. An estimate of the quantity embraced has been fixed at 38,000,000 tons. Small quantities of lead are also traced in Kentucky, and silver ore has lately been discovered near the Cumberland Falls. Salt springs abound in the sandstone formation, and have become very productive. Saltpeter-earth, or nitrate of lime, gypsum, or plaster of Paris, are found in the caves. Mineral springs are numerous, embracing sulphur, saline, chalybeate, &c. The salt springs received the name of "licks" from the early settlers, on account of their being the favorite resorts of the wild animals, which were fond of licking the efflorescences so abundant around them. The name is also applied to the sulphureted fountains which occur in various places."

"The country in general may be considered as well timbered, producing large trees of many kinds, and to be exceeded by no country in variety. Perhaps among its forest growths none is more valuable to the settler than the sugar-tree, which grows in all parts, and furnishes every family with a plenty of excellent sugar; and the honey-locust, so curiously surrounded by large thorny spikes, bears long pods in the form of peas, having a sweet flavor, and from which domestic beer is made. The coffee-tree, greatly resembling the black-oak, grows large, and also bears a pod in which is inclosed coffee. The pawpaw bears a fine fruit like a cucumber in shape and size, and of a sweet taste. The cane, on which cattle feed and grow fat, in general grows from three to twelve feet high, is of a hard substance, with joints at eight or ten inches distance along the stalk, from which proceed leaves resembling the willow. There are many cane-brakes, so thick and tall that it is difficult to pass through them. Where no cane grows there is an abundance of wild rye, clover, and buffalo-grass, covering vast tracts, and affording excellent pasture for cattle; and the fields are covered with wild herbage not common to other countries. Here is seen the finest crown imperial in the world, the cardinal flower, so much extolled for its scarlet color; and all the year, except the short winter months, the plains and valleys are adorned with a variety of flowers of the most admirable beauty. Here is also found the tulip-bearing laurel-tree, or magnolia, which is very fragrant, and continues to blossom and seed for several months together."—*U. S. Gazetteer.*

Railways and Cities.—Among the most important are the Lexington and Covington or Kentucky Central Railroad.

Covington, the northern terminus, is situated on the Ohio, opposite Cincinnati; it is a flourishing city. Paris, on the line of the road, is a fine, active town; it is the capital of Bourbon County. Lexington is a beautiful city, of 20,000 people, distinguished for its literary and scientific institutions and the culture and refinement of its inhabitants. Near this city is Ashland, former home of the Statesman HENRY CLAY.

The Louisville, Cincinnati and Lexington Railway extends from Louisville to Lagrange, 27 miles; thence, branching, one division extends 67 miles to Lexington; the other, now about completed, to Cincinnati. This road, passing as it does through a most desirable portion of the State, has done much to develop its resources. Louisville, its western terminus, is the commercial and manufacturing metropolis of the State; it has a population of about 100,000, is a splendid city, and has a front rank among the great cities of the West.

The Louisville and Memphis Railroad extends from Louisville in a southwesterly direction to the borders of the State, forming connections, at or near Bowling Green, with the large cities of the South and West.

The New Orleans and Ohio Railroad extends from Paducah, near the confluence of the Ohio and Tennessee rivers, to Union City.

The Mobile and Ohio Railroad is completed from Columbus, Kentucky, upon the Mississippi River, to Mobile, Alabama, a distance of 472 miles.

A number of other roads are in operation or projected.

"The natural resources of EASTERN KENTUCKY," says a writer to the Agricultural Bureau, "have never been developed. A small portion of the lands are under cultivation, being very mountainous, and most of that which is brought under the plow is depleted by a wasteful system of culture, and either left to broom-sage or undergrowth, or cropped still at great expenditure of labor for small returns. A small portion of river bottom lands is too rich to be exhausted by surface-culture, and is still very productive. Even that which

has been abandoned is not exhausted, the culture received never penetrating the soil deep enough for that. The almost inexhaustible mineral resources of this country are comparatively unknown. This whole region, back to the Cumberland range, and even farther, abounds in the richest minerals, consisting of iron, coal (both stone and cannel), gold, silver, lead, and an immense quantity of lithographic stone, reported to be the purest in the world, and said to exist nowhere else in America."

From the March, 1868, Report of the Department of Agriculture, we extract the following respecting the character, price, &c., of Kentucky lands:—

PRESENT LAND VALUES COMPARED WITH THOSE OF 1860.—Returns from Kentucky show an average increase of about 10 per cent. in the value of farm lands over the estimates under the census of 1860, though the advance is by no means uniform, nor is the decline or increase confined to any particular section of the State; as, while in Kenton, Pendleton, and Boone, in the northern portion, lands have advanced from 40 to 50 per cent., Franklin County, close at hand, reports a decline of 25 per cent., and Owen and Oldham "no change." In the western section, Webster reports 10 per cent. decline; Ohio, Butler, and Christian, "no change." Todd and Graves, a small advance, and Livingston an advance of 10 per cent. Of the central and southern counties, Clinton reports 10 per cent. decline; Russell and Pulaski, "no change;" Metcalfe, Whitley, and Laurel, 10 per cent. advance; Edmonson, 25 per cent. advance; and Rockcastle, 30 per cent. advance. Thence farther north, Hardin reports a decline of 25 per cent.; Spencer, 15 per cent. decline; and Fayette, "no change;" Scott and Gallatin, a slight advance; Henry, 10 per cent., Harrison 20 per cent., and Anderson 33 per cent., advance; Jefferson reports lands in the vicinity of Louisville, 100 per cent. higher than in 1860, but not so large an increase for lands more remote from the city. In the northeast, Lewis County reports 30 per cent. advance, while the adjoining county of Greenup reports "no change."

PRICE OF WILD LANDS.—The estimated value of wild or unimproved lands in the State varies from $1 per acre up to the price of improved lands in the several counties. Rockcastle and Pulaski are the only counties reporting as low as $1 per acre, the land in the former being "poor, hilly, and heavy," and in the latter "varying from poor freestone plateaus to rich, north slopes and hollows in limestone, suited to fruit culture." Lewis, Lincoln,

Butler, Christian, and Graves report from $2 per acre upward, most of those at $2 being mountainous and poor, though some are covered with heavy forest and are susceptible of improvement and will produce good crops. Russell, Edmonson, Webster, Livingston, Ohio, Hardin, Laurel, Greenup, and others, vary from $2.50 to $5 per acre; Anderson, Owen, Franklin, Trimble, and Metcalfe, $5 to $10 per acre; while Todd and Pendleton estimate at $20, Kenton, $25, Oldham, $30, and Bourbon as high as $75 to $80 per acre; the higher figures representing lands in close proximity to cities, upon lines of railroad, or with valuable timber accessible to market. In Kenton County, the timber is good —oak, ash, black walnut, and hickory, worth much more than the price of the land, and the soil is fertile, as is generally the case in surrounding counties. In Bourbon County, the lands reported are not properly under this head, being in grass, without building improvements, valued at $75 per acre. Along the Kentucky River, these unimproved lands are generally rocky and hilly and in timber, suited to grass and fruits. A portion of the soil is clay, on limestone, thin and rolling. In Anderson, most of this class is rough and hilly, of average richness, producing blue-grass in abundance, and when first cleared will yield 50 to 60 bushels of corn to the acre. In Lincoln, about half the county comes under this head; high, sandy, with heavy forests of oak, poplar, and chestnut, capable of producing wheat, corn, tobacco, sorghum, &c. In Whitley, the creek and river bottoms are rich, the uplands thin. In Russell, the soil of such lands is generally poor and thin, but susceptible of improvement, a portion heavily timbered. In Ohio County, the hill lands abound in coal and iron, and the swamps make good meadow, while the whole county is well timbered. In Graves, about one-tenth is bottom land, one-fourth broken, timbered, and the remainder level, light-timbered, called barrens. The general character of these lands is good, and much of that which is not already fertile may be readily improved and rendered highly productive in general farming, or well suited to grazing purposes.

Minerals.—Kentucky is rich in mineral resources, and her beds of coal and mountains of iron and stone are almost inexhaustible. Coal is found in abundance in Greenup, Rockcastle, Laurel, Pulaski, Whitley, Clinton, Edmonson, Hardin, Ohio, Butler, Christian, Webster, and other counties. In most of these counties this coal is of excellent quality, but used only for home consumption, there being no means of transportation. In Laurel County the coal beds are from three to five feet in thickness. A railroad is now in progress of construction through the central part of the county, connecting with Louisville, which will open up a market for this coal, now undeveloped for want of means of carriage to market. In Pulaski they claim to have "the best

bituminous coal on the continent." Our Clinton correspondent says:—

"A range of hills in the eastern part of this county, extending north and south, contain an immense amount of coal in strata of four feet in thickness."

This coal is now being worked to some extent by a company who ship to Nashville. In several counties roads are being built that will encourage the more extensive development of this interest, but as yet little has been done in that direction.

Iron is found in greater or less quantity in Greenup, Trimble, Rockcastle, Pulaski, Whitley, Russell, Clinton, Edmonson, Ohio, Butler, &c., but, like the coal deposits, has been but feebly developed. In Greenup, the furnaces are closed up, ore within reach of present facilities being pretty well exhausted. Iron ore is found all through Russell County. "About 35 years since a very superior iron was manufactured here, from which some of the blacksmiths made good edged tools without steel. The iron was hard and tough. There has been no development since, and it is doubted whether the ore is in sufficient quantity to pay for working." This ore also abounds in Clinton County, and David Dale Owen, in his Geological Survey of Kentucky, in speaking of this and counties east of it, says:—

"There is every reason for believing that their resources in coal and iron—staple commodities of those nations of greatest prosperity—will, when fully developed, compare favorably with those of any civilized country on the face of the earth."

In Butler County there is much iron ore, but it is said to be of the honeycomb variety, which is considered comparatively valueless. A large amount of capital could be profitably invested in utilizing the iron interest of this State.

Lead is found in Trimble, Owen, Bourbon, Scott, Franklin, Anderson, Livingston, and counties contiguous. In Anderson there is a mine said to yield 80 per cent. of lead, but the chemist making the test reported that it would not pay to work it. In Livingston, lead has been found upon the surface, but has not been worked to any extent. Salt wells exist in several counties, but are not worked. In Clinton, says our correspondent, "a fine stream of salt water has been struck on Willis Creek, in the northwest, and a company are now at work producing salt, and the prospect is considered good. There is a fine opening for men experienced in salt making, there being an abundance of water, and timber and labor is cheap. Salt for the Nashville market and for the Cumberland River country comes from Ohio and Western Virginia. The cost of shipping salt down the Ohio and up the Cumberland, is certainly much greater than down the Cumberland to Nashville." Salt water also abounds in Metcalfe, Anderson, Whitley, Russell, &c. There has recently been discovered

a gold mine in Anderson County, and its value is being now tested by a company. Saltpeter is found in Rockcastle, and limestone and freestone abound in Lewis, Trimble, Clarke, and other counties. Our Lewis County correspondent claims for his county "the finest ledge of freestone from Pittsburg to Cincinnati, from which nearly all the fine buildings in the latter city are now being built, and the rock of which the Cincinnati and Covington bridge was built was taken from the quarries of this county; not extensively worked, there being but one quarry in operation, employing 200 men.

TIMBER.—The timber resources of this State are well known, the finest quality abounding in all sections, and embracing a great variety of forest trees of primitive growth, furnishing unlimited lumber supplies, as yet but partially developed. The soil of the State, however, supplies her chief source of wealth, rendering Kentucky peculiarly an agricultural and grazing country, in which latter branch she has long ranked among the first in the land.

CROPS.—Few farmers in Kentucky confine themselves to the culture of any one crop, and a mixed husbandry generally prevails, embracing the production of wheat, corn, oats, rye, potatoes, tobacco, the raising of stock, &c. Wheat, corn, and tobacco are the chief crops, the latter being the principal one for export, the corn grown being largely used upon the farms—converted into stock. Our Trimble correspondent writes:—

"The tobacco crop in this county is the most valuable. In 1866 the product was 1,916,100 pounds, but, owing to the drought, the crop of 1867 did not reach more than half as much. The product of hay in 1866 was 826 tons; corn, 276,235 bushels wheat, 11,824 bushels; barley, 1,052 bushels."

Tobacco is also extensively grown in Owen, Franklin, Edmonson, Ohio, Christian, Webster, Pendleton, Todd, Graves, and other counties, while wheat and corn receive especial attention in Greenup, Lewis, Bourbon, Scott, Hardin, &c., and corn alone, the leading grain product, in Laurel, Oldham, Anderson, Boyle, &c. In Edmonson tobacco yields an average of about 800 pounds to the acre, with a profit of about $30 per acre. Ohio County: "Our principal and most reliable crops are tobacco and corn, upon which our farmers have mainly relied for profit; first, by the sale of their tobacco direct; second, by the sale of stock fed and fattened by their corn and hay." Todd County: "In favorable seasons the average yield of tobacco is 900 pounds. A good hand will make 3,000 pounds, which has been sold here, for several years past, at $12 to $15 per hundred-weight. Owing, however, to the change in the labor system, the quantity raised is annually declining." In Graves the yield and profit is about the same as in Todd County.

In Lewis County, "the best bottom lands yield from 60 to 100 bushels of corn to the acre, and wheat averages 15 bushels." Scott County: "We raise an average of 40 bushels of corn, 30 bushels of oats, and 10 to 15 bushels of wheat; this being one of the noted 'blue-grass' counties, is largely devoted to grazing, and our surplus grain is consumed by stock during the winter." Laurel County: "Corn is the special crop, average 25 bushels. I last year raised on two acres, well manured, 120 bushels of good corn." Whitley County: "Corn and wheat, crops eaten and fed to horses, cattle, and hogs, which are driven on foot to foreign markets." Oldham County: "Indian corn the chief crop; 40 bushels to the acre; net profit, $12 to $15 per acre." Henry County: "The greatest profit is derived from the corn crop, which is fed to stock, mules, steers, and hogs, affording good profits." Fayette County: "If we have any specialty it is in the fine quality of our stock; probably no section of our country can boast of finer stock than we have, and, in my judgment, mules, horses, and cattle attain a higher degree of perfection here than in any other section of the Union." Boyle County: "This is a stock-raising county; but little grain is sent out of the ounty, most of the corn and grass raised being fed to stock. This is one of the principal mule-raising counties in the State." Harrison County: "A large portion of the corn crop, nearly all the rye, and a small portion of the wheat is distilled into whisky, there being several large distilleries in the county, making a fine market for grain, they paying this season $1 for corn and $1.15 for rye."

Wheat is generally sown broadcast from the middle of September to the middle of October, the drill being practically unknown in most of the counties, and where used putting in a small percentage of the seed. Harvesting commences as early as the middle of June, and is usually over the first week in July. But little attention is given to cultivation. In Russell and many other counties they "sow in corn land, scratching in among the corn stalks with a shovel plow, the yield being from four to ten bushels."

Blue-grass is the almost universal grass of Kentucky, and the "blue-grass region" is too well known as a grazing country to require lengthy notice at our hands. This grass is very hardy, and if not grazed after the first of August until winter, makes excellent winter pasture; stock doing well upon it, except for the short period it may be covered by snow. White clover, crab-grass, fox tail, &c., are also found, while among the cultivated grasses successfully and profitably grown are herds-grass, timothy, red-top, orchard grass, clover, Hungarian grass, &c. While under favorable circumstances stock may be sustained nearly the whole year upon pastures alone, the average pasture season, when cattle will do well without other feed, ranges from seven to nine

months; sheep subsisting longer, and frequently the entire year. The average cost of pasture per head is given at from $1 to $2 per month, and for foddering during the winter from $2 to $2.50 per month.

FRUITS.—Fruit culture has not received much attention in Kentucky, there having been no market for the crop, while in some counties our correspondents think results have been indifferent, and sometimes failures, when the experiment has been tried. Most of our reporters, however, claim that all fruits suited to the latitude, such as apples, peaches, pears, plumbs, quinces, small fruits, and berries, &c., will do well under proper care and cultivation, and prove highly remunerative. In some sections the worm and bug have been very destructive to orchards, and discouraged attempts at fruit-growing. One correspondent writes:—

"All the principal northern fruits grow well here, particularly the apple, peach, plum, &c. But little attention has been paid to fruit until within the last few years, but farmers are now planting good orchards of choice fruits."

CORRESPONDENCE.

From Louisville, Kentucky, August 6, 1868, Mr. JOHN J. SPEED, Postmaster, writes as follows:—

Farming lands very fine, and prices high in this vicinity. In adjoining counties prices are much lower; soil good.

All sorts of labor high. Plenty of laborers (black), but great unwillingness to work. Want good German workers, of both sexes.

Climate very variable—extreme heat and cold. City regarded as healthy.

No minerals near. Timber in the county—walnut, poplar, oak, ash, &c., plenty.

Crops good this season; corn, wheat, potatoes, and oats; prices good. The city is the country's market.

Common school system in successful operation. Private schools abundant. All denominations represented.

The population is composed largely of Americans, some Germans, Jews, and Irish.

From Boyd County, Mr. E. L. SHEPHARD writes:—

Bottom lands sell from $50 to $100 per acre. Back, and hill, and small creek valley lands, from 50 cts. to $10 per acre. We have plenty of coal, limestone, and timber. Of our crops we export very little. Our people are mostly immigrants from Southern States.

From Hardin County, August 10, 1868, Mr. S. W. D. STONE writes:—

Farm lands in this county vary, from the best to the thin and poor, in price, from $10 to $60. We need farm laborers and mechanics. Abundance of coal within fifty miles. We have good schools, and Protestant and Catholic churches. The majority of our people are natives of Kentucky. We have a good many Germans.

We raise any quantity of fine fruit. We have the best fruit lands in this or any other State. Peaches are selling at from $2 to $6 per bushel. Fruit land, from $10 to $25 per acre.

From Russellville, Logan County, August 20, 1868, Mr. J. W. WINLOCH, County Clerk, writes:—

The south, east, and western portions of Logan County are beautiful level farming lands, well timbered, finely watered, and fertile, black soil, with a red clay subsoil, adapted to growth of corn, tobacco, wheat, oats, rye, potatoes, &c. Pretty thickly settled, and well improved. Land worth from $15 to $60 per acre. The country north of the railroad, and lying in the northern part of the county, is rather mountainous—abounding in the finest beds of undeveloped coal and minerals. Land not very rich, except along the water-courses, and in valleys; value of land, from $1 to $30. There are good common schools in every neighborhood of the county, and a splendid male college, and a No. 1 female college located at Russellville, the county seat, a pleasant town of some 3,000 inhabitants, with Methodist, Baptist, Presbyterian, and Catholic churches.

Farm labor is much needed; good opening for mechanics; professions overrun. Relations existing between Southern and Northern men, the *most harmonious;* and *the war is considered over.*

From Bourbon County, Mr. W. H. POLK, Postmaster at Paris, the county seat, writes as follows:—

Lands in this vicinity are worth from $80 to $150 per acre. A number of counties in this, the central part of the State, embracing those of Bourbon, Fayette, Harrison, Scott, Woodford, Madison, Jessamine and others, are very fine counties, and the land all rates *high.* Since the breaking up of the system of slavery labor is very *unreliable,* and it is hard to get good hands, as the negroes are all too *idle* and *lazy* to work. If good work-hands could be sent into this part of the country, I think it would be a great help to us Our lands raise corn, hemp, wheat, oats, barley, rye, and all cereals, in great abundance; most of the corn is used in distilling.

This is a great beef county, as the finest cattle that go to your market are from this county—Bourbon. There is plenty of good water-power.

Mr. J. F. STEWARD, Postmaster at Paintsville, Johnson County, thus writes:—

The general character of this section of the State is mountainous; valleys fertile, worth from $25 to $40 per acre, creek lands much cheaper. Price of labor about 75 cents per day or less, and the supply exceeds the demand. Climate good and healthy. The population is composed chiefly of native mountaineers.

Coal is very abundant, varies from 2 to 7 feet. Iron ore plenty. The kidney iron contains some lead in the center. Surface oil in this county about 16 miles west of Paintsville, and the show is greater than in any other known place; many springs produce it—two in abundance. The coal is often near to the river, Big Sandy, and of excellent quality. Our river is not large, and is navigable for about half the year. Coal has been marketed to Cincinnati often, by several companies, but not with success, though I believe it could be profitably worked if managed properly.

The coal of this valley, especially in Floyd and Pike counties, as well as in this, Johnson, will be very valuable when the market demands it, for it is inexhaustible.

The timber of this valley, oak and poplar, has hardly any superior, but near the river it is nearly all taken out. The timber business has long been carried on here, and it is the main source for money—bark and staves, also logs.

Corn is the principal crop, and is used for bread here; 50 cents is the usual price.

We are 65 miles from Catlettsburg Ky., the mouth of Big Sandy River; it is 150 miles from Cincinnati, Ohio. Our river is our only means of transportation, we have no road. Our schools are bare excuses, religious advantages limited.

Sorghum is raised here successfully and profitably; will produce 5 barrels molasses to acre.

The lands here are all taken up, but being mountainous are not settled, and are not capable of culture for steepness. Mountain lands can be bought for $1 to $1.50 per acre, out from the river, and will have some farming lands on the branches and hill-sides.

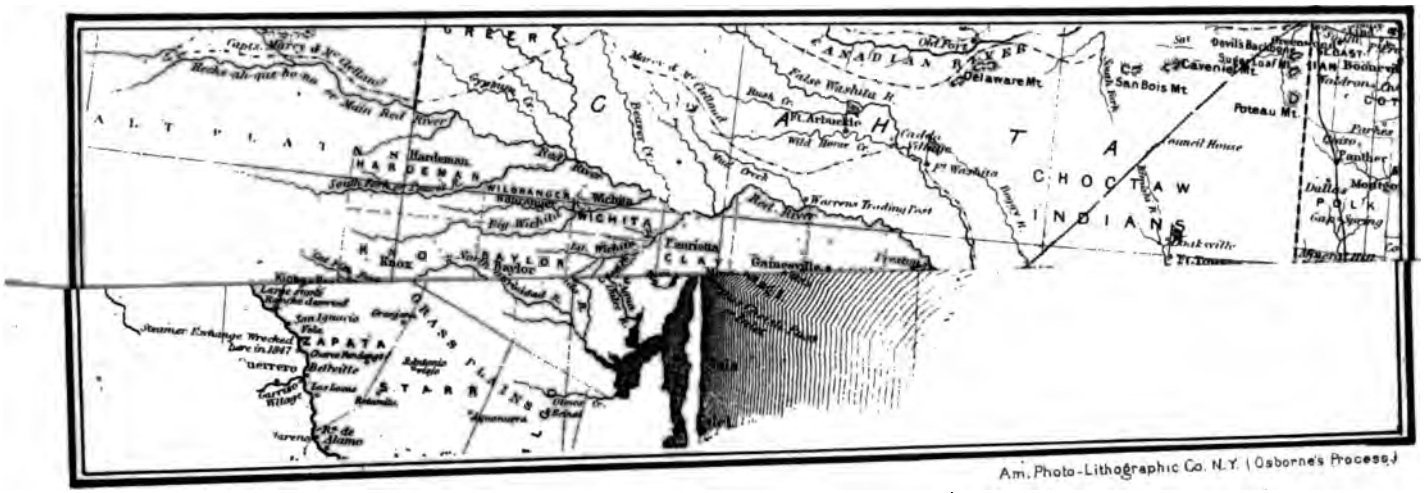
Northern men here are treated respectfully, but if they are radicals they will be treated more coolly than if they are confederate democrats. There are no inducements for migration into this section; many are going West.

TEXAS.

TEXAS is by far the largest State in the Union. Its greatest length is, from northeast to southwest, more than 800 miles, with an extreme width of 750. It has an area of 274,356 square miles, or upward of 175,000,000 acres. A better idea of its magnitude may be formed when it is known that more than two hundred States of the size of Rhode Island could be carved out of its territory. Texas was admitted into the Union in 1845. Its population in 1850 was 212,592; in 1860, 604,215.

The settled portions of the State may be generally divided into three physical districts or sections, each with distinctive characteristics, and inviting the immigrant to essentially different systems of agriculture and employment, as follows: First, the crescent-shaped zone or belt of country, lying low, along the Gulf of Mexico, varying from thirty to one hundred miles in width, bountifully timbered, and producing cotton, sugar, &c. Next, the flower-embroidered prairie, the home of the grain-raising farmer, rolling away northward and westward, to lose itself in the grass-covered uplands and plains of the stock-raiser, that skirt the elevated and treeless table-lands of the "Llano Estocado," or other uninhabited regions of the West.

This is not an arbitrary division. There are many products of general consumption and necessity, such as corn, potatoes, &c., which are common to all parts of the State; but certain sections are specially adapted to the raising of live stock, as others to grain, and others, again, to cotton and sugar. Nor is this adaptedness confined entirely within the boundaries indicated; as for instance, while the coast region produces more bountiful crops of cotton, and is naturally best suited to its



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culture in many respects, it may be successfully and profitably raised in nearly all the counties eastward of the San Antonio River, and east of a line drawn from the town of San Antonio, in Bexar County, north, to Red River. It is said there is a larger area of rich virgin soil, adapted to the cultivation of cotton, in the State of Texas alone, than in all the cotton States east of the Mississippi River, and that in those counties lying upon the Guadalupe, Colorado, Brazos, Trinity, Sabine, and Red rivers, the best, *par excellence*, of the Texas cotton region, not one acre in a hundred has yet been cultivated.

The "wheat region" of Texas is in the northern part of the State, and embraces some thirty counties, of which Dallas is the center. The average yield in these counties is stated to be about twenty-one bushels per acre. In 1866, the wheat product of this region alone was estimated at nearly two million bushels, while in 1850 the total product of the State was less than fifty thousand bushels. This cereal is grown to a limited extent in most of the cotton counties nearly down to the coast, but the region above indicated combines in a superior degree those advantages of climate and soil which adapt it to the perfect development of wheat. A great variety of other products flourish in this section. Barley, rye, and oats do equally well with wheat and corn. Sweet potatoes and the tame grasses are much cultivated, and yield well. Cotton, which also produces well, is neglected, owing to remoteness from market and cost of transportation.

There is no part of the continent, and perhaps no region in the world, more admirably suited to sheep husbandry or general stock raising than portions of Texas. Requiring no food to be gathered for their winter consumption, animals may here be raised upon vast grazing ranges, covered with the most nutritious grasses, almost without cost. Large fortunes have often been quickly realized in these pursuits from very small beginnings, particularly in the southern and western portions of the State, which are mainly devoted to these branches of industry, some localities being better adapted to horses and cattle, and others to sheep and swine.

That portion of the State lying between the Rio Grande and San Antonio rivers, and southeast of the road from San Antonio to Eagle Pass, on the Rio Grande, is occupied by a hardy and active race of stock-raisers, who depend almost entirely upon their flocks and herds. The climate of this section, though hot, is exceedingly healthy, but decidedly unfavorable for agriculture, owing to the prolonged seasons of drought. When Gen. Taylor marched from Corpus Christi to the Rio Grande, in 1846, it is said there was not an inhabitant to be found between that river and the Nueces, but the whole region was roamed over by countless numbers of wild cattle and mustangs, which have since been killed, or caught and tamed. Judge Davis, of Brownsville, says these animals are now even more numerous than when in their original wild condition, and thinks southwestern Texas will one day export a half million beeves annually.

This latter region is remarkable for its capacity for the production of salt, the soil for hundreds of miles from the coast being so impregnated with it that it is difficult in many localities to find water fresh enough to drink, even by digging.

That portion of Texas best adapted to sheep husbandry lies between the Colorado and Nueces rivers, Kendall County being the present center of the sheep-raising interest. The southeastern portion of Texas, lying on the rivers Angelina, Neches, and Sabine, contains the finest pinery in the United States. It extends from Rush County through Nacogdoches, Angelina, Tyler, Hardin, and Jasper counties, to near the coast, occupying the most of southeastern Texas. The long-leafed pine is the principal species throughout the southern portion of the pine country. This species yields about one-third more sap than any other which has in this country been tested for obtaining turpentine.

In regard to the transportation facilities of Texas, it may be stated that owing to the very limited river navigation of the State, railroads must be the main reliance of the people for internal commercial purposes. Several lines have already been constructed, starting from the Gulf coast, and extending

toward the interior. These lines and their connections are being rapidly lengthened, while several others are in progress and projected. As the country becomes more populous, additional railway facilities will follow, and as the surface of the entire State is peculiarly favorable for their construction, the day is not distant when Texas will be traversed in every direction by these great iron highways.

Some months ago a comprehensive and interesting description of the climate, soil, and resources of Texas appeared in the *Rural New Yorker*, a leading and influential agricultural journal. It is from the pen of HENRY S. RANDALL, LL.D. of Cortland Village, N. Y., an eminent author, with an established reputation as such both in the agricultural and literary world. Mr. RANDALL is President of the National and also of the New York State Wool-Growers' Associations, and few men have done more to give an intelligent direction to agriculture and husbandry. The following is the article referred to:—

We have within the last few months received a number of inquiries in regard to Texas, which we have not had time to answer; and recently, an association, comprising several persons who propose to emigrate to that State, have addressed us interrogatories, full answers to which would embrace a description of the physical features and agriculture of the entire country.

It would require a volume to give the information thus asked for. Texas stretches through ten degrees of latitude, is considerably more than five times as large as the State of New York, and more than three and a half times as large as all New England. Most of the noted kingdoms of Europe, like Great Britain, France, Spain, &c., do not approach it in extent. Vast regions of it are yet in a state of nature, the rest is thinly populated, and but small portions have been described, with any degree of minuteness, by competent and reliable observers. At best, then, we could give but a partial and superficial sketch; and our narrow limits compel us to confine ourselves to the most meager outlines. Those who have addressed us on the subject will find the best description which we have seen, of all the different counties collectively, in THE TEXAS ALMANAC for 1867 (8vo, 360 pages), published by and obtainable from W. Richardson & Co., Galveston, Texas. On this highly valuable work, on Olmsted's *Journey through Texas*, and some similar publications, and on letters received from a large number of intelligent private correspondents in different parts of

the State, we mainly rely for the accuracy of the statements which follow.

GEOGRAPHY.—The southeastern side of Texas fronts on the Gulf of Mexico, which opens its commerce to the world. It has a sufficiency of good harbors. Noble rivers leave few of its more fertile portions unprovided with accessible outlets to the sea during periods of the year. Its level surface will allow railroads to be constructed over a great part of it by the easiest grades. A low plain, from fifty to eighty miles wide, very slightly ascending toward the interior, belts the entire coast. From thence the surface rises and becomes first rolling, and then hilly, until it reaches the high table-lands of the Llano Estacado. The seaport towns of Galveston and Lavaca are respectively 10 and 24 feet above the level of the ocean. Houston, about 50 miles in a direct line from the coast, has an elevation of 60 feet; Columbus, between 80 and 90 miles from the coast, 250 feet; Gonzales, something over 100 miles from the coast, 270 feet; San Antonia, about 140 miles from the coast, 635 feet.* The table-lands and the desert Llano Estacado (Staked Plain), usually rise from 2,000 to 2,500 feet. Some elevations in the northwest reach 5,000 feet.

GEOLOGY.—The lower and rolling lands are alluvial. The hilly region is cretaceous, and abounds in excellent limestone for building. Beyond this, primitive rocks appear in many places. The great plains consist of stratified clay and cretaceous marls. On the verge of these plains are deposits of gypsum extending over an area of thousands of square miles. Coal beds exist in different localities. Iron ores are found in inexhaustible quantities on the Llano River, and they abound on tributaries of Red River in northeastern Texas. Copper has been discovered in different places, and also specimens of the precious metals. The mineral regions of the State have been so little explored, that the extent of its resources in this respect are but beginning to be known. Various salt springs have been found, and salt of good quality, produced by natural evaporation, can be obtained in immense, if not inexhaustible quantities at the salt lagunes below Corpus Christi, and at the salt lake in Hidalgo County, forty miles from the Rio Grande.

SOILS AND PRODUCTS.—In the north, the rich, black soil is especially adapted to the production of wheat, yielding in ordinary seasons, and under the very imperfect cultivation it receives, an average of twenty-one bushels to the acre. It is of superior quality, and very heavy—in occasional instances reaching seventy-two pounds to the bushel. The wheat region proper embraces about thirty counties, of which Dallas is the center.

* We give the distances from the coast, not by roads or river courses, but direct, as measured by the scale of miles on the new map of Texas, published in THE TEXAS ALMANAC for 1867.

The eastern counties, unlike the rest of the State, were covered by forests. The most northerly of these are highly adapted to a diversified husbandry, including all the productions of more northern regions; and they have been favorite places of settlement by an industrious class of farmers from Kentucky, Tennessee, and the northern parts of Mississippi and Alabama.

The southeastern and central-southern counties are the most fertile in Texas, and include the best cotton-growing region, of any thing like an equal area, in the world. The cotton counties proper constitute about one-third of the State. A very large portion of the choicest lands have not yet been cultivated. This region also includes several millions of acres of sugar lands, often quite equal to those of Louisiana. Sugar has been produced to considerable extent near the mouths of the Brazos and Colorado.

The soil of western Texas, exclusive of the barren region between the Nueces and Rio Grande, consists generally of black, calcareous loam, and its pasturages are probably unequaled by any other natural ones in the world. They afford feed for a boundless number of horses, cattle and sheep throughout the year.

We have thus far only alluded to staple commodities. Corn, wheat, oats, rye, barley, buckwheat, millet, sorgum, Irish potatoes, sweet potatoes, peas, beans, turnips, pumpkins, and garden vegetables of every kind produce remunerative, and some of them abundant, crops on all the good soils of the State,* and from many of them two crops might be taken in a season. Fruits can be grown in boundless profusion. Apples in northern Texas are thought to be as good as those of the Northern States. Peaches, nectarines, apricots, plums, quinces, figs, raspberries, strawberries, &c., of choice quality, can be grown throughout the State. Wild grapes are found everywhere, and the cultivated varieties are easily acclimated. Their production may be increased to any extent. Horses, neat-cattle, sheep, and hogs require so little artificial feed that they can be raised at the most trifling expense. Tobacco and rice have been but little introduced, but there is no doubt that they can and will be cultivated in extensive regions, and will become most profitable crops. All in all, there is not, perhaps, an equal area of land on the globe which possesses greater natural fertility and a better adaptation to the production of the necessaries, comforts, and luxuries of life, and the profitable staples of commerce.

* The barren lands bordering on the lower Rio Grande and the Staked Plains in the northwest will not be taken into view in our account of the soils and products of Texas, or in any other parts of our description, unless they are especially mentioned.

CLIMATE.—As a sample of the climate, we give the mean temperature of every month in the year 1859, as observed by Professor C. G. Forshey in Fayette County, on the Colorado, in latitude 30°: January, 50° 57′; February, 62° 44′; March, 61° 50′; April, 65° 31′; May, 75° 61′; June, 81° 56′; July, 84° 76′; August, 84° 90′; September, 79° 42′; October, 66° 29′; November, 63° 92′; December, 43°; annual mean, 68° 04′.

"In point of climate," says Olmsted, "Texas claims, with at least as much justice as any other State, to be called the Italy of America. The general average of temperature corresponds, and the skies are equally clear and glowing. The peculiarities over other climates of latitude are found in its unwavering summer sea-breeze and its winter northers. The first is a delightful alleviation of its summer heats, flowing in each day from the Gulf, as the sun's rays become oppressive, and extending remotely inland to the farthest settlements, with the same trustworthy steadiness. It continues through the evening, and is described as having so great effect that, however oppressive the day may have been, the nights are always cool enough to demand a blanket and yield invigorating rest."

The severe northers occur from December to April, and usually occupy not much over forty days. The rapid reduction of the temperature from 70 or 75 degrees, to 30 or 40 degrees, and the driving wind, are keenly felt. When most cold and violent, and accompanied with rain and sleet, they sometimes cause considerable destruction among domestic animals exposed to their fury. These instances, however, are rare, and the shelter of a grove or hill, or even a good farm wall, is sufficient to prevent such consequences. They are regarded as healthful and invigorating, and, notwithstanding the sudden change of temperature accompanying them, do not cause, or even exasperate, pulmonary diseases. It is claimed that consumption does not originate in the region where they prevail.

HEALTH.—As in all new, warm, and highly fertile countries, the low, rich river bottoms—especially those of southern Texas, which are covered with a boundless profusion of semi-tropical vegetation—are not healthy to unacclimated persons. The higher lands between those rivers are usually considered healthy, where judicious dispositions are made by the emigrant; but the Northern emigrant runs some risk of undergoing a "seasoning" course of chills and fever. The hilly region of the west are as free from malaria as any other new countries we ever heard of—far more so, we judge, than were large portions of Ohio, Illinois, and Michigan when first settled. We have known of hundreds of people from the Northern, Middle, and Western States who have emigrated to the sheep-region presently to be described, and we scarcely remember of hearing of one who incurred any

disease in the process of acclimation. Great numbers of invalids, especially of consumptive invalids, from the older Southern States, resort to the region around San Antonio for the improvement of their health. The native Mexicans used to tell a story in regard to its healthfulness which has a regular *Yankee* smack to it. They said some travelers approaching San Antonio met three disconsolate looking persons who were hastening away from the city. They asked them what was the matter, and where they were going. The three disconsolate looking persons replied that they had met with reverses, that they wished to die, and were going to some place where people *could* die.

Yellow fever is imported into the coast towns, as it is imported into New York and Philadelphia, but it does not originate in them. Its ravages, as would be expected in such a climate, are sometimes severe; but it does not penetrate into the hilly region any more than it penetrates into the interior of New York or Pennsylvania.

Times of Planting and Harvesting.—Plowing can be done in every month in the year—an immense advantage over Northern regions in economizing labor. It is carried on in January and February for the field crops. Early garden vegetables are planted in January. In February, the prairies are green; corn is mostly planted; oats, peas, &c., are sown. In March, fresh pasturage is quite abundant, the lamb-drop takes place, about half the cotton is planted. In April, the remainder of the cotton is planted, sheep are shorn; pototoes, peas, and wild-berries appear in market early in the month. In May, the small fruits are harvested; apricots ripen toward its close. In June, early corn is ready for harvesting; peaches ripen. In July, cotton ripens but in the average of seasons the main crop does not open freely until the first of August. In the cotton districts, its picking, preparation for market, and hauling, consume the rest of the season, until about the close of November. December is a plowing, clearing, and picking-up month

The above statements refer to average seasons in the central latitudes of the State, and to the ordinary farm culture of the main crops. Some of them might be grown earlier, and many would ripen if not put into the ground until months later. Most garden vegetables can be planted throughout the season, so as to afford a constant repetition of them for the table.

Wool Production.—As all the inquiries we have received point particularly, and some of them exclusively, to this husbandry, we shall give some additional details in respect to the facilities for carrying it on in Texas. Sheep can be grown highly profitably, for domestic uses, on the moderately elevated, dry, *sound* lands of all parts of the State. But the sheep-region proper—that where the pasturage is best adapted to them, both in

summer and winter, where they can in respect to health, be most safely herded in great flocks, and where, accordingly, the land being equally cheap, wool can be most cheaply grown for exportation—lies in western Texas. It is bounded on the east and west by the Guadalupe and the Nueces, and, so far as now known, on the north by the Colorado, say from Bastrop upward.

South of San Antonio this region is generally level, descending with a moderate slope to the coast. It contains some excellent sheep pasturages as low down as the second tier of counties from the Gulf—and in one of these (Live Oak) is now located our friend, John McKenzie, one of the best flock-masters in Texas.

But the hilly country, commencing five or six miles north of San Antonio, is regarded, *par excellence*, as *the* sheep region. The hills farther toward the north become more abrupt, with narrower valleys between, until large river bottoms are reached. The present center of its sheep husbandry is Kendall County, appropriately named after George Wilkins Kendall, who first practically demonstrated the special adaptation of the country to that husbandry on a large scale, and whose racy and able writings on the subject have attracted thither emigrants from all parts of the United States and Europe. Mr. Kendall has exhibited the rare merit of showing both sides of the medal—of stating drawbacks as well as advantages, failures as well as successes—and it is this candor which has given such a wide influence to his writings.

We have not space, nor is it now necessary, to describe the whole area of the sheep region as we have bounded it; and we shall confine our attention to a group of about a dozen counties lying around Kendall. The soil is generally good, dry, and sound. Streams are quite abundant, and they are generally as clear as crystal—the water pure and wholesome. Springs are frequent, and oftentimes of extraordinary volume. There is much valuable timber on the larger water-courses, and groves of post-oak affording mast for innumerable hogs, abound in the bottoms. The hills are usually mostly bare of vegetation, except grass. The last consists of varieties of the mesquite, probably the finest natural grass for sheep in the world, and quite equal to the white clover of the North. It is short, fine, exceedingly palatable and nutritious, withstands droughts well, and springs up like magic after every shower. It is not entirely killed down by the short winter, and with sufficient range (which is everywhere attainable), entirely subsists flocks throughout the year, so that no artificial food is provided for them. The hilly regions are destitute of fencing timber, and the sheep are herded by shepherds and dogs. New lands, in the less thickly settled neighborhoods, can be obtained at from one to two dollars per acre. It is only necessary for the emigrant to secure a homestead, including enough land to raise his domestic supply of grain and vegetables. His sheep,

horses, cattle, and hogs can be pastured on the outlying ranges without his buying the land or paying rent to anybody. Indeed, a single man may hire his board, and keep large flocks and herds without owning or hiring an acre! This state of things will continue in portions of the sheep region beyond the lives of the present generation.

Sheep as a general thing are uncommonly healthy, and are in better condition the year round than ordinarily kept flocks in the North. Lambs obtain an earlier maturity. They are subject to scab, as must always be the case in an unfenced country, where scattering sheep are liable to spread it from flock to flock. But in escaping the foot-rot of the North the advantage still remains in their favor, for the former is the most easily and cheaply extirpated disease of the two in large flocks. It requires but two or three dippings, at short intervals, in a strong decoction of tobacco, to effect a thorough cure. With a proper dipping-vat, holding half a dozen sheep at a time, the process can be rapidly performed, and it requires no experience or skillful manipulation. Every flock-master can raise sufficient tobacco as easily as an equal patch of corn. The principal cost of growing wool, besides first purchase of flock, is resolved then into the cost of herding, of salt, of shearing, and of getting it to market.

The cost of commencing a flock is comparatively small. The price of common sheep in Texas, several grades better than the old Mexican sheep, is not now, as appears by the statements of writers in THE TEXAS ALMANAC for 1867, higher than the cost of the common sheep in the North. These should be graded up by the use of Merino rams. To make the improvement rapid and uniform, the rams *should be of perfect purity of blood*, and those every way good enough for the purpose, and having reliable pedigrees, can be purchased in New York and elsewhere, in lots of five or ten, for one hundred dollars apiece. Those wishing to take out a few pure blood ewes of equal quality, as a nursery to raise rams from, can obtain them at the same prices.

Sheep husbandry in Texas has some drawbacks. The Indians are somewhat troublesome in the frontier counties, though they make their thieving excursions after horses and cattle rather than sheep, because the latter can not be driven off fast enough to escape pursuit. There is little doubt that these pests will be so far subdued or driven back, before the present Indian war closes, that they will occasion no further inconvenience.

We have alluded to the northers. They do not, at worst, compare with the wild winter storms of the Northern States, in which the temperature often sinks thirty or forty degrees lower. As already stated, animals are easily protected from them. The shelter of a dense grove, or escarped hill, ordinarily renders even young lambs safe from such of them as occur in the yeaning sea-

son; though, as in the North, untimely storms of extraordinary severity sometimes occasion considerable loss. On the whole, we believe that the present percentage of increase in lambs is quite as great as in any part of the North, with all the artificial and costly shelter provided in the latter, and that with the rudest sheds the advantage would be in favor of the former.

The droughts to which the sheep region of Texas is exposed constitute the greatest natural drawback on its advantages. These in occasional years are severe, but they have never in a single instance compared in intensity or duration with those which periodically visit the great sheep-growing countries of Australia and the Cape of Good Hope. We know of no years in which they have destroyed the grass sufficiently to cause the actual starvation of sheep. In the severest Texas drought within our recollection, Mr. Kendall carried through a number of thousand sheep without any material loss and without their becoming poor and weak. We watched the struggle with keen interest, for he kept us apprised of the state of things every week. There was alarm, additional trouble, and nothing more. The trouble consisted in driving the sheep farther out daily after feed; but this, if we remember aright, in no case exceeded four or five miles from their daily starting-point, and we think they returned to their pens at night, making the greatest distance traversed in going and coming eight or ten miles—not half the distance which sheep are ordinarily driven every day in summer to procure their food in a great portion of Australia, and not in the aggregate to be compared with the annual migrations of the sheep of Spain after pasturage.

The only other drawback which we know of is distance from market. Boerne, the capital of Kendall County, is thirty miles north of San Antonio, and the latter is one hundred and fifty miles by the road from Port Lavaca, thirty of which are by railroad. San Antonio, the principal city of western Texas, already contains fifteen thousand inhabitants, and is growing and increasing in business with great rapidity. It is impossible to suppose, therefore, that it will not soon be connected with the sea-coast by railroad, and this must at no distant day be intercepted by railroads which will connect it with the other cities of Texas and with New Orleans.

Were we disposed to wander from a cold profit and loss account and paint an arcadian scene, we should add a good many other touches to our picture of this region—its beautiful scenery, its crystal rivers stocked with fish, its forest abounding in deer, wild turkeys, and other game, its abundance of wild fruits, and that coincidence of climate and soil which renders life most agreeable, and its necessaries and comforts most easily attainable. But we will close with a remark of our accomplished and widely trav-

eled friend, Mr. Olmsted. Speaking of western Texas generally, he says: "Of the genial portion (that is, exclusive of 'the barren wastes bordering the Rio Grande') I have already spoken with unfeigned enthusiasm. For sunny beauty of scenery and luxuriance of soil it stands quite unsurpassed in my experience, and I believe no region of equal extent in the world can show equal attractions. It has certainly left such pictures in memory as bring it first to mind as a field for emigration, when any motive suggests a change of my own residence."—*H. S. Randall, in "Rural New Yorker."*

Emigrants and others who seek information respecting Texas, will find in the "Texas Almanac," published by W. RICHARDSON & Co., of Galveston, detailed descriptions of all parts of the State, from the most reliable sources. The modest title of this creditable work conveys no idea of the mass of valuable information it contains. Each year from 300 to 400 pages of new and original matter are presented, comprising precisely the information necessary to form a just estimate of the climate, resources, and general advantages of Texas. In the "Almanac" for 1867 we find a detailed description of all the counties in the State, from which we select a few that most faithfully represent the leading resources of their respective sections, and by permission transfer them to these pages. We commence with a fair specimen of the coast counties:—

BRAZORIA COUNTY.

COUNTY SEAT, BRAZORIA.—This county is tolerably well supplied with common schools in all the settlements. A high school for females is soon to be established in Grazoria, having been endowed by the will of Mrs. Perry. In Grazoria there is one Methodist and one Catholic church; at Columbia, a Methodist and Presbyterian church; also one at Sandy Point, and one at Liverpool, and four others in the county. There are a few fine springs of excellent water in the eastern part of the county, but none elsewhere, nor are there known to be any minerals or mineral springs in Brazoria. *Products.*—Cotton and sugar are the chief products for export. About four-fifths of all the sugar made in Texas is produced in this county. There are a good many expensive sugar mills and machinery. The other products are corn, oats, rye, millet, the Hungarian and other grasses, the native and California clover, all of which do well. Sweet and Irish potatoes, peas, beans, and all varieties of vegetables are grown abundantly.

Fruits.—Peaches, pears, figs, quinces, plums, &c. Black and dewberries grow wild in the greatest abundance, and strawberries are cultivated. The climate is salubrious and pleasant, being tempered with a sea-breeze day and night, often making covering necessary in the warmest season. The soil is of various kinds, and nearly all is the most productive in the world. The county is nearly twice the size of average counties, and nearly one-half of it is covered with the best timber. The prairie has here and there groves of post-oak, live-oak, and cedar, and affords the best kind of stock range, as the grass continues green nearly through the winter, while the contiguous woodlands and bottoms afford excellent shelter for the stock in winter. The herds of cattle are very large, and it is believed that the stock of Brazoria is equal in value to its agricultural products. The seasons are generally quite uniform, though subject to occasional excesses of rain and drought. The live-oak of Brazoria is the best in the country, and affords the best ship-timber in the world, nearly all of which is contiguous to navigable water. The average size of the trees is five feet diameter, and thirty feet high to the first limb. The rivers are the Brazos, Oyster Creek, Bastrop Bayou, Chocolate Bayou, and the Bernard, all of which are navigable for light-draught vessels. The Houston Tap and Brazoria Railroad has been in operation to Columbia for seven or eight years, and passes nearly through the middle of the county. The present crops are but about half an average, owing entirely to the impossibility of getting the negroes to work, for the season has been one of the best ever known. The negroes do not do more than about one-fourth as much as when slaves. The planters will not again contract with them, unless upon the distinct understanding that they may discharge them if they do not work better. The mortality among them, owing to dissipation and having no one to take care of them and their children, as formerly, has increased 25 per cent. But one or two plantations have as yet tried white labor. One of these, cultivated in cane, and worked by laborers just from the south of France, has produced better than it ever did when worked by the same number of slaves. These white laborers enjoy good health, and are well pleased with their change of country. The wood for fuel and firing is in great abundance. Live-oak and cedar furnish the material for building. Milk, butter, chickens, &c., are had in every family, at scarcely any cost. The range for hogs is excellent, as the mast is abundant. The cost of raising consists in the trouble of marking them. The usual markets are Houston and Galveston, each fifty miles distant from the county seat. The transportation is by rail to Houston, at $1.50 per bale for cotton, and by water to Galveston, by the canal, or on the Gulf, at 75c. to $1 per bale. The planters frequently ship their cotton from Galveston to Liverpool, and their sugar to New York.

The native wine grows luxuriantly, and nearly every family makes an excellent wine from the grapes for their own use. Land is worth from $1 to $50 per acre. The average value of good unimproved land is $8 to $10 per acre. The average yield per acre is, in cotton one bale, and in corn thirty-five bushels. One hand can cultivate, on an average, sixteen acres in cotton and corn. But the negroes now do as little work as possible. They, however, behave very well, so long as they are not made to work and have enough to eat. The time of planting corn is about the 10th of February, and of cotton the 10th of March. The corn usually matures about the 1st of July, and the planters commonly commence picking cotton about the middle of July, and the picking has to continue, as the cotton continues to open, till Christmas; and even then, when the planter has to begin to prepare his ground for another crop, the fields are often white with cotton, which is lost for want of hands to pick it. Cistern-water is universally used in Brazoria. The usual price of corn is 50 cents to $1 per bushel; potatoes, 25 to 50 cents. A good beef, weighing 500 or 600 lbs., is worth about $10; pork is worth 3 to 4 cents per lb.; butter, 15 to 25 cents; bacon, 15 to 20 cents, though these articles are sold by but few.—*Texas Almanac.*

COLLIN COUNTY.—A FAIR SPECIMEN OF THE BEST NORTHERN COUNTIES.

COUNTY SEAT, MCKINNEY.—This is, perhaps, in point of soil, the richest county in the State. It is in the heart of the wheat region, and susceptible of almost entire cultivation. It may appear strange, but it is true, that all the land is fit for cultivation, except the very beds of the streams. The recent registry exhibits over sixteen hundred voters. The western part of the county is high rolling prairie, as rich as Texas affords. Quite a number of streams rise in this part of the county, running a little south of east. This part of the county is rather scarce of timber. The middle portion is equally rich in point of soil, and much more abundant in timber. The eastern part is still more heavily timbered, and, except the extreme east portion, is not so susceptible of cultivation, on account of the heavy timbered ridges and bottoms. Yet the soil is very rich, with a dense growth of hackberry, elm, pecan, ash, bois d'arc, redbud, &c., on the ridges, and bur, overcup, pine, and Spanish oak, walnut, ash, elm, hackberry, pecan, wild China, &c., in the bottoms. Land is held at moderate prices; unimproved prarie, at from $1 to $5; timbered land, from $4 to $10; improved lands from $5 to $15 per acre, governed by locality and character of improvements, those nearest the county seat commanding best figures. Corn, barley, oats, and wheat are

the principal crops raised. Cotton grows well, but wheat and barley are leading products. Apples, pears, and peaches also succeed well. The spring and well-water is generally limestone. Many cisterns are in use, and made underground in the rock, with little more labor and cost than the digging of wells. The grass is good, both on the eastern and western sides of the county, but the middle part not so good. Cattle do well, but the range is better adapted for horses and sheep. Weston and Mantua, two flourishing villages in the northern part of the county, are situated about six miles apart. These places are located in the heart of populous neighborhoods, and support good schools. Plano is a thriving village in the south part of the county, on the main stage line from Austin to Clarksville. Farmersville is situated near the Hunt County line, and is the nearest trading point for one of the finest neighborhoods of farmers in the State. A good school is sustained there. The county seat, McKinney, suffered much during the war, all the buildings on one side of the public square having been destroyed by fire. At present there are eight dry-goods establishments, three grocery stores, and one drug store. One excellent school is well sustained in the town; also one mile from the town there is a most excellent academy, established since the war. There are several good steam flouring mills in the county. I know of no county in the State that offers superior advantages to the immigrant. It is settled by a thrifty, industrious, and intelligent population—a people who have been accustomed to rely upon their own exertions, and who are determined to overcome the difficulties produced by the change in the system of labor heretofore relied upon. A long residence satisfies the writer of the exceeding healthfulness of the county. McKinney is two hundred and forty miles north from the capital of the State. (To the above, from Governor Throckmorton, we subjoin the following additional information from Senator Bumpass.) This county was first settled, some twenty years ago, by Collin McKinney, from whom both the county and county seat have received their name. The schools and churches of this county will compare favorably with those of any country in the world of the same age. The traveler is struck with the uniform moral deportment, quiet, industrious habits, and Christian devotion of the plain farmers of Collin. Hogs are easily raised, and every farmer has his own bacon the year round. The population is rapidly increasing, and soon the county will be densely settled. Our chief market now is Jefferson, Marion County, distant 140 miles, and reached by wagon at a cost of $2 per hundred for freight. The soil of Collin is a black, waxy character, mingled with loam, making it easy of cultivation. It is from two to twenty feet deep, and the more it is cultivated the better it produces. The oldest farms rent the best. One hand can cultivate fifty acres of land in corn, wheat,

oats, vegetables, and Hungarian grass. There are but few Africans in Collin County, and what few are left are doing very well, but are decreasing by going back to Louisiana, Missouri, and Arkansas, from whence they were driven by the war. Most of our labor is being performed by white men, who own their little farms, and by steady young white men who are employed by our farmers, and are far preferable to black laborers. The following are the average prices since I have been in the State: Wheat, $1; corn, 75 cents; oats, 66 cents; barley, 50 cents; rye, 50 cents; sweet potatoes, $1; pork, 6 cents per pound; butter, from 5 to 12½ cents per pound; beef, 2½ and 3 cents per pound; bacon, 12½ cents per pound; good average horses, $100; oxen, per yoke, $40; cows and calves, $12.50. The climate is delightful. We have some ice when a norther springs up in midwinter, but little snow. Collin is bounded on the north by Grayson County, on the east by Hunt, on the south by Kaufman and Dallas, and on the west by Denton. It lies mostly above the 33d parallel of latitude, and in one of the healthiest regions of country in Texas.—*Tex. Al.*

SAN AUGUSTINE, ONE OF THE EASTERN COUNTIES.

COUNTY SEAT, SAN AUGUSTINE.—The county of San Augustine is situated between the bayou Apolygotch on the east and the Altoyac River on the west. In the central part of this county is a ridge of red lands, extending the entire length of the county; the nature of this soil is very excellent for farming, as it constitutes what geologists term a table-land of the richest upland in the State. A great portion of this red land has been cultivated for 30 years, and still yields an abundant harvest of produce to the industrious laborer; the remaining lands are gray and very fertile. The county is bisected by never-failing streams, every three or four miles, running from the north to the south. The lands immediately on these streams are bottom, and are similar to the delta lands of Louisiana, being of the most fertile character, and containing the same growth, namely, cypress, magnolia, oak, hickory, walnut, wild-cherry, sumac, and cane-brakes, which were originally almost impenetrable, but are now much thinned by the cattle. The bottoms vary in width from 100 yards to 1,000 yards; adjacent to the bottoms are generally to be found hommocks, with timber of a smaller character to the bottoms, with the exception of the ever-greens, cypress, canes, and white-oaks; these hommocks constitute the finest upland farms in the State, when the locality is free from liability to wash. Between the bottom hommocks and the next bottom and hommock are found the finest pineries in the world, both the long and short leaf; occasionally may be found flats, in these pineries, where may be seen fine post-oaks. The geological period is part of the limestone and the

sandstone; in the latter are to be found large deposits of shells, denoting the previous existence of a vast amount of animalculæ. The products are corn, cotton, wheat, rye, oats, potatoes, pumpkins, and peanuts. The yield of corn is from 10 to 40 bushels per acre; cotton, from 700 to 1,000 pounds per acre; potatoes, from 300 to 500 bushels per acre; wheat, rye barley, and oats yield from 7 to 20 bushels per acre. The above includes the bottom as well as the upland yield. The seasons in this immediate portion of the State are, and have been, better and surer for a fair yield than any portion of the State distant from the coast. Sugar-cane is successfully grown, and would be raised for export if the machinery could be had for the manufacture of sugar in large quantities.—*Tex. Al.*

WASHINGTON COUNTY.—A FAIR SPECIMEN OF THE BEST COUNTIES IN CENTRAL TEXAS.

COUNTY SEAT, BRENHAM.—Schools and colleges were wonderfully well maintained during the war; but now they fall short of the needs of the increasing population. There are several very excellent schools; a boarding and day school for young ladies (Live Oak Seminary, near Gay Hill), conducted by the pastor of the Presbyterian Church, is only one of several holding a high position for many years. Of colleges, one for boys and another for girls at Independence, under the auspices of the Baptist Church; and two of an equally high order, and similar, at Chapel Hill, under the care of the Methodist Church. The former includes a law school, and the latter one of medicine and surgery, which are fast becoming celebrated. Churches of every denomination are numerous all over the county. Of minerals and mineral springs there are few. Along the base of the hills ranging south and parallel to the river Yegua are salt and soda springs. Thick strata of lignite of excellent quality crop out, or have been cut through, in digging wells. Along the same range of hills are springs impregnated with sulphur; and offering evidences of the presence of petroleum, in the frequent gaseous bubbles and the oily scum on the surface. Not much probability of coal or iron. Abundance of lime-rock, yielding excellent lime. The county is unusually well watered; and good and permanent water-tanks can be anywhere made. In agricultural products this county is generally understood to be the richest in the State. The chief crops are corn (or maize) and cotton, both produced abundantly; wheat, barley, oats, the various millets, sorghum, the sweet and Irish potato, garden vegetables, &c., are all largely grown and yield well. The natural prairie grasses, when inclosed and mowed a few times, afford heavy cuts of good hay. The growing crops, considering all the difficulties in the way of labor, and the delays in cultivating, from heavy

and continued rains, are unusually promising. The small grain crops were harvested with difficulty, and were limited in extent. No fodder (corn or tops) has been saved, and little hay cut. Cotton will be a fair crop, even should the worm sweep over it by the last of the month, August, which is now doubtful, at least so soon; inasmuch as the same *Ichneumon* has appeared which saved the crop in 1848. This is a small insect, somewhat like a winged ant; the female of which inserts her egg into the chrysalis of the cotton-worm, producing a larva which preys upon the other. Corn is a full crop, though the usual breadth has not been planted. The castor-oil bean, and other oil-producing seeds, yield great returns. Tobacco has been grown pretty generally by the negroes, and gives a large return of good leaf. But little rye, and no buckwheat or rice; although any and all grow well, the last with irrigation, of course. Hops, hemp, flax, indigo, madder, and other dye-stuffs can all be grown. With the exception of rather too frequent cold northers, during the late autumn, winter, and early spring, there is no more pleasant climate, especially upon the open prairies; though some claim the same, or even more, for the sheltered woodlands. The great general elevation of the county, gradually rising from the coast, thus bringing it within the reach of sea-breezes, modified and tempered, contributes much to the agreeability of the climate and general good health. The black prairie soil is notoriously rich and productive; many of the creek bottoms and timbered lands, have also excellent soil. The Brazos bottoms, at the east end of the county, are unsurpassed in productiveness. The county is well timbered; not over two-fifths is prairie. The La Bahia prairie extends the entire length of the county, and nearly along its center. The timber is mainly oak, of several species, affording abundant fencing and fuel, with various elms, ashes, hackberries, hickories, pecans, cottonwoods, box-elders, red-cedars, wild-peach, mulberry, &c., with occasional valuable cane-brakes; one beautiful group of magnolias and hollies; no pines. The Mustang grape-vine (*V. Mustangensis*) grows in vast quantities, festooning the live-oak, &c., in the most beautiful and graceful manner, and bearing heavy and regular crops of grapes, from which a good red wine is made. Of rivers, there are none within the county. The Brazos is the boundary on the east, the Yegua on the north. The valley of the bottom affords a vast range for cattle and hogs, and some good lands for cultivation. New-Year's, Wolf, Mill, and many other small streams, have their sources in, and traverse portions of, the county. A railroad, soon to be extended sixty miles farther, to Austin, taps the Texas Central Railroad at Hemstead. Brenham, the county seat, is the present terminus. This road is of great value to Washington County, and to all the country north and west. The pasturage is unsurpassed by any part of the State

when the lands are inclosed, which is easily done by hedging, and for which the Osage orange (*Machara Aurantiaca*) and various roses, &c., have been used; but the best and surest is the white microphylla rose, known as Maria Leonida. Stock of all kinds thrives well; but the county, until each farm is inclosed, is overstocked. The best building material in much of the county is stone. Good bricks are made. Houses are chiefly framed of cedar, and of pine brought from the pineries of Grimes and Montgomery counties, distant thirty or forty miles; excellent houses of hewed logs are common. The cheapness of living depends entirely upon ourselves. A kind and bounteous Providence gives food of all kinds in abundance. The fruits, butter, milk, cheese, poultry, and eggs, wine, game, &c., and their preparation and cooking depend upon individual efforts. Game, as deer, turkeys, grouse, quails, the great prairie hare, &c., are abundant. The most serious difficulty is, that the means of living are too abundant and too easily procured. Hogs are raised in great numbers, and cheaply; and bacon cured easily, with reasonable care. Our population is fast increasing; can not say at what rate; but the result will be to make this beautiful county a white man's country.

The entire county is capable of being cut up into small farms; many owners are doing this, and making sales or renting to newcomers unable to buy; receiving from $3 to $5 per acre per annum for the cultivated land, generally 30 to 50 acres in extent, and with very moderately comfortable cabins, and but few other conveniences. Life and property are secure, as much so as in any part of the United States. Our chief markets are Galveston, 130 miles, and Houston, 75 miles distant; accessible by railroad. Cost of freightage, three-fourths of a cent (1½ farthing) per pound per 100 miles. The vine is cultivated successfully, and good wine is made. This will become a leading business in the county, as on all the calcareous lands of the State; and on the meanest sandy lands, employing the scuppernong—a white variety of the *Vitis Vulpina*. The prices of lands range from $3 to $25 per acre. A fair yield of cotton is 1,000 pounds per acre in the seed, or fully 300 pounds of lint; corn, 25 to 50 bushels; wheat, 10 to 30; barley, 25 to 50, as to seasons and cultivation.

The experience of many years has proved that in this county at least, and, indeed, in a great part of the State, the white man or woman finds no difficulty or serious inconvenience in farm labor. The mornings, until 10 or 11 o'clock, during midsummer, and the evenings, after 3 o'clock, are pleasant enough out of doors; and during that time a fair day's work can be readily done. Much cotton, and that too, unusually well handled, is grown and picked in this county by white labor. The prices of staple articles of produce vary so much, one season with another, that it is impossible to particularize. But all such articles, as also

stock of all kinds, rate high in this county, being accessible to ready markets, and traversed by several of the most frequent routes of travel in the State. The county seat, Brenham, being central, is a favorite starting-point for parties desiring to examine the State; there leaving the railroad for stage, hack, or saddle-horse. Mills for cutting and dressing timber, for grinding corn and wheat, and ginning cotton, are quite numerous; and a short time will see several manufactories of cotton and wool at work. —*Texas Almanac*, 1867.

COMAL COUNTY.—A WESTERN COUNTY.

COUNTY SEAT, NEW BRAUNFELS, which is located on the west side of the Comal River, near its junction with the Guadalupe. It is one of our largest and most flourishing inland towns, and con tains a population of about 3,500 inhabitants. The New Braunfels academy, which is located here, has now about 400 scholars, who are instructed in English and German, and there are four other schools in the county. The town also contains one Catholic church and two Lutheran. The population is mostly German, but nearly all speak English, and several Americans have lately settled among us, attracted by the fine climate, the rich soil, and the abundance of pure water to be found all over the county. There is about forty feet fall from the Comal springs to its confluence with the Guadalupe, and there are eligible mill sites all along its banks, for factories, sufficient to supply the whole State of Texas. Its water-power has been pronounced, by those engaged in manufacturing, as superior to any in the Southern States, and it will doubtless, ere long, attract the attention of capitalists wishing to invest in such enterprises. Already there is a large cotton factory which has been in successful operation for more than a year. There is also, on the same stream, a large sash factory, with a wool-carding machine, three flouring and grist-mills, two breweries, and one distillery. The county also, most of which is thickly settled, is well watered by the Guadalupe, which runs nearly through the middle, from northwest to southeast; also by the Cibolo and Blanco rivers, and by Curry's, Wasp, Sister, and numerous other creeks. There are some eighteen or twenty water-mills in the county, some of which are extensively engaged in the manufacture of flour for export; there are also several saw-mills. There is plenty of timber, which consist smostly of cedar, live, post, and black oak, walnut, hickory, elm, pecan, mesquite, &c. Rock, however, of which there is a great abundance, is the chief building material. Pine lumber is also hauled from Bastrop for building—distance, about fifty miles. The agricultural products of the county are, cotton, corn, and all the cereals. Corn generally sells from fifty cents to $1 per bushel, and

wheat from $1 to $1.50. Every thing is sold for specie, but currency is freely taken at its market value. Sulphur springs are quite common; but, of minerals, only plumbago has yet been found. The formation is limestone. All kinds of fruits are raised in abundance, such as peaches, apples, pears, quinces, plums, and cherries; and the grape-vine has been most successfully cultivated, producing a fine quality of wine, while the trees in the river and creek bottoms are literally loaded down with the Mustang grape, from which also a very drinkable wine has been made. From the facilities for irrigation, this county will doubtless be eventually the wine region of Texas. The labor is almost exclusively white, and can be had on reasonable terms. There are but few freedmen in the county. The entire population will reach about 6,000. The lands of the county, being mostly covered with mesquite grass, are especially adapted for raising cattle and horses; but sheep have been found the most profitable investment, as indeed they have proved to be in all this western section of the country. This year the pasturage has been unusually good. Game is very abundant. In the neighborhood of New Braunfels the cultivated lands are literally alive with quail, which afford excellent sport in winter. The mule-eared rabbits, which resemble the English hare, are also very numerous, and are taken with greyhounds. There are plenty of deer, panther, and bear, also the silver fox, raccoon, opossum, and a variety of other wild animals. Fish is also found in great abundance in all the streams. Lavaca is the shipping port, distant about 150 miles.—*Tex. Al.*

RED RIVER COUNTY.—ONE OF THE NORTHEAST COUNTIES.

COUNTY SEAT, CLARKSVILLE.—We have a number of good schools and churches throughout the county. McKinzie's College, three miles southwest of Clarksville, is a fine institution of learning, and in successful operation. The agricultural products are corn, cotton, wheat, oats, barley, rye, potatoes, peas, and all kinds of vegetables. Climate, mild and pleasant. We have a variety of soil—prairie, river-bottom, and timbered land. The prairie lands are black, and of the richest quality; the river-lands are rich and productive, and have not been overflowed entirely since 1842. They came nearer overflowing this last spring than they have since that time. The timbered uplands are sandy, and some portions are productive. It is a fine country for fruits, vegetables, and grapes. Some fine pineries are in the timbered lands, which keep some six or eight steam saw-mills in active operation all the time. The lumber sent from this portion of the county is a considerable source of profit. The Memphis and El Paso road will run through the center of the county. We have plenty of timber for all purposes. Our best building material is pine lumber.

We have plenty of butter, eggs, milk, cheese, poultry, &c. It does not cost much to raise hogs; they generally live on the range until they are two years old; they are then put up and fattened on corn a few weeks. We are secure in life and property, and our population is increasing rapidly. New Orleans and Jefferson are our markets. We ship down Red River direct to New Orleans, when the river will permit. We make no wine, though I think it could be made. Lands are worth from $1 to $10 per acre. We make from 1,200 to 2,000 pounds of seed-cotton per acre; from 30 to 50 bushels of corn; wheat, from 15 to 25 bushels. A hand can cultivate from 15 to 20 acres in corn and cotton; in corn and wheat he can cultivate more. The negroes do about half work since their liberation; their behavior is good. We have some white laborers, and they are considered better and more reliable. The customary price of corn is fifty cents to $1; wheat, the same; potatoes, $1; pork, five cents per pound; butter, ten cents per pound; bacon, twelve and a half cents per pound; oxen, $40 to $50 per yoke; milch cows, $10 per head, with calf; sheep, from $1 to $2 per head.—*Tex. Almanac.*

DIRECTIONS FOR A SMALL FARMER IN TEXAS.—BY A TEXAS FARMER.

Sow as much small grain as you can conveniently. If you do not live in the wheat region, sow rye, barley, or any grain that will grow. It will more than pay the cost of sowing, in winter pasture; and, if you are scarce of corn, it will make a good substitute, if cut and cured before it is ripe. Prepare your corn land in winter, if you can do so. Stiff and clayey lands should be plowed with turning-plows, and deeply, too. Sandy lands, with sandy subsoil, should be plowed deep, but not turned over deep, with turning-plows. Plant early as the weather will admit of, or as soon as the spring opens, if you can know when that is. Plant in rows four feet each way, thin to two stalks in a hill; then you can cultivate with the plow, and dispense with one-half or three-fourths of the hoe-work required in drilled corn. Some prefer the bedding-up system; others, flat breaking. For stiff and close soils, perhaps bedding up is best. For loose and sandy land, the other answers very well. I have not space to enter into details of planting and cultivating, as I suppose all know, or should know, how to cultivate corn. Stir the land, and keep weeds and grass down, and you are tolerably sure of a crop. Plant enough corn to be sure of plenty for home use, raising and fattening pork included; and then, if that does not take all your time, plant and raise what cotton you can, never neglecting the improvement of your farm.

Have a good garden spot, and plant all kinds of vegetables. The wives and daughters of small farmers (I mean no disparage-

ment to others) are generally industrious, and it will be a pleasant recreation to them to cultivate it, especially if you will give them a part for the cultivation of flowers, and keep your horses and other stock out of the door-yard, so that they can cultivate flowering shrubbery. Make preparation for a large sweet-potato patch, never omitting the Irish ones, however. Make large ridges for sweet potatoes; then, in cultivating, scrape the ridges with a hoe, and the middles with a sweep, and they will require little or no hilling up; try it. Plant out till the middle or last of August. If you have a large potato patch, it will aid you very much in fattening your pork if your corn should be short. Potatoes have a long time to grow in, and there is apt to be rain enough some time in the season to make them grow. After your corn is laid by, or sooner, plow your stubble-land, and plant with peas; drill three feet apart, and cultivate once; you may also plant in your corn; they will produce from ten to twenty bushels to the acre, and besides having plenty for table use, if you like them, you will, perhaps, have enough to fatten all your stock; that is, farm stock, hogs for pork, &c. Have an acre or two for turnips. Rich bottom-land will do very well, if not best, even without manure. About the first or middle of September sow them, after thoroughly plowing your land. They often produce hundreds of bushels to the acre, and cattle may be wintered on them.

Endeavor to have barns and sheds to house fodder and hay as well as stock. Raise all kinds of stock needed upon the plantation. Raise every thing needed upon the farm, so far as you can do so.

These directions are for those of limited capital. Those who prefer raising cotton and buying every thing are at liberty to do so.—*Tex. Almanac*, 1868.

Titles to Land.—Under this head we quote further from the Texas Almanac for 1868.

There are at this day but two modes of acquiring land in Texas—by purchase from the party entitled, or by settlement under the pre-emption laws of the State.

Any one desiring to acquire land in Texas, either with a view to future settlement or for purposes of speculation, if he should do so by the purchase of inchoate rights in the form of land certificates, should consider the following questions: Under what statutory provision the right had its inception? What conditions were attached to the grant of the certificate? Have they been fully complied with? Has any other certificate been granted to the same party; if so, for what consideration and for what quantity? Has not another and a different certificate been issued, located, and returned to the General Land Office *in the*

name of the same party for the identical consideration mentioned in this? Is the certificate an original or a duplicate? If an original, has not a duplicate been issued, located, and patented upon? The answers to these, and other questions that with propriety might be asked, being satisfactory, the matter might be further considered as suggested by the following: Is the chain of transfer from the original grantee to the present holder regular? Whether the intermediate owners, or either of them, had sold or transferred to another party?

In case of purchase after the title from the Government has issued, there are many things for consideration, such as regularity of chain of title, priority of record, undivided interests, locative interests, statutes of limitation, &c., &c. To these and other questions connected with them, remotely or directly, it frequently requires diligent and patient investigation of the public archives and the county records to answer satisfactorily; and cases have sometimes arisen where the most patient search, with all the necessary facilities, has proven fruitless of satisfactory results. In some instances, defects of title are cured by limitation of time. To determine these cases, and indeed many other questions connected with the land system of Texas, requires at all times great care and consideration.

With the acquisition of land by settlement under the pre-emption laws of the State but little trouble is experienced. The right being direct from the Government to the settler, the plain, uncomplicated statutory provisions apply. These are so simple and so easily comprehended that "he who runs may read."

It is commonly understood that the most desirable part of the public domain of Texas has long since been appropriated by location and survey. This, as a general proposition, is true. Instances, however, are frequently occurring where outstanding, unsatisfied certificates are being located upon some of the most eligible tracts of land in the State, which were supposed to have been appropriated by location and survey years ago. Opportunities of the kind are seldom seen at this late day, except by those who have made the location of certificates their peculiar business.

The March Report of the Agricultural Department says:—

The decline in the value of farm lands in Texas since the census of 1860 appears not so great as in most of the Southern States, though the same causes which have been active in depreciating real estate in the latter have been seriously felt in many counties of Texas. Anderson and Victoria report an average decrease of 70 to 80 per cent.; Dallas, Falls, Nacogdoches, Goliad, Blanco, De Witt, Colorado, and Lavaca, about 50 per cent.; Collin, Cherokee, and Hardin, 25 to 33 per cent.; Houston

and Navarro, 25; Ellis, 20; Williamson 10 per cent. Bell, Gillespie, Lampasas, Burnet, Nueces, and Cameron report no material change since 1860, while Washington reports a general increase of 5 per cent., though in some localities it is over 100 per cent., and Hays and Coryelle about 10 per cent. From the estimates of reporters the average decline in values of farm lands in the entire State is from 25 to 30 per cent. Many correspondents express the opinion that the depreciation is but temporary, and that lands generally will soon command the prices of 1860.

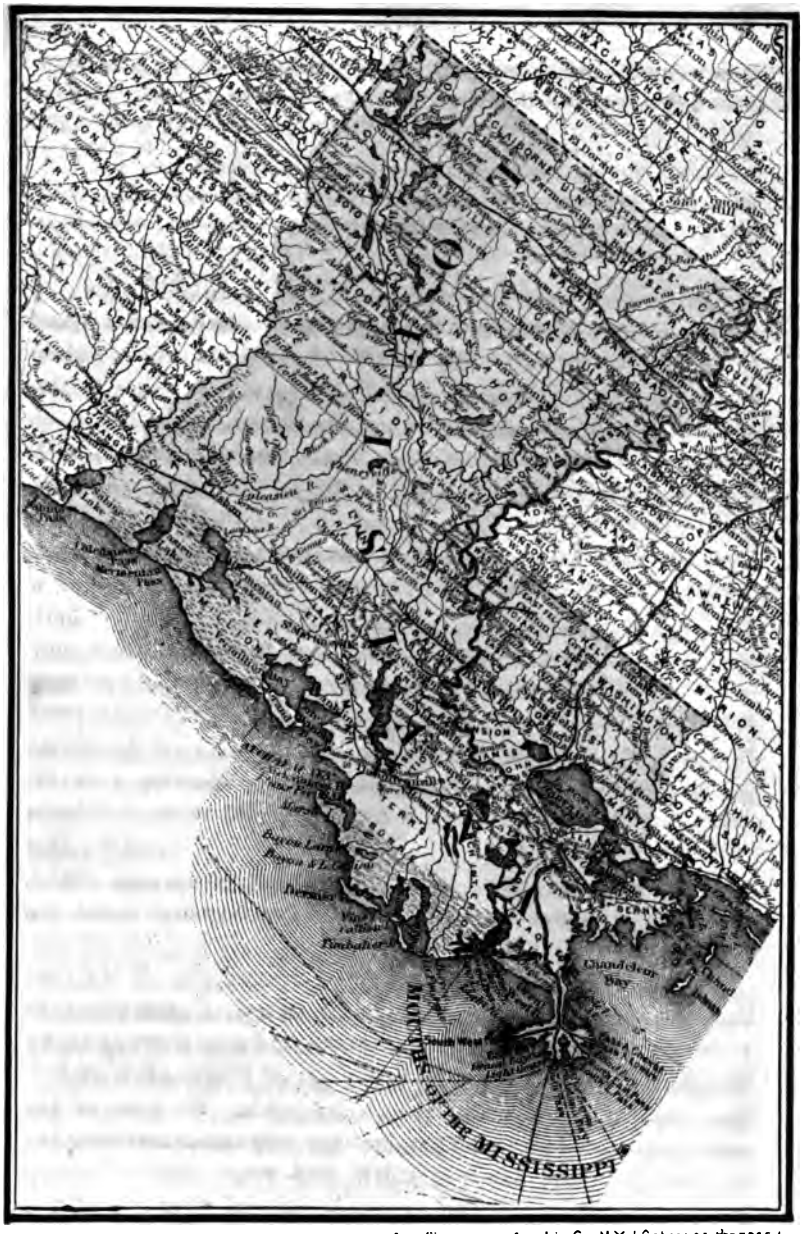
Price of Wild Lands.—Wild or unimproved lands range in price from 12½ cents to $10 per acre, and embrace a very large proportion of the total area of the State, less than two per cent. being under cultivation in 1860, the census figures standing: improved land in farms, 2,650,781 acres; unimproved land in farms, 22,693,247 acres; wild or waste areas (including water areas, &c.), 126,541,412 acres. These lands, when owned by the State, may be had for the price of the certificate issued from the land office at Austin. Where lands are held by individuals under Spanish or Mexican grants, they may be bought in large tracts as low as 12½ cents per acre, while small tracts held under patents from the State are held at from 50 cents to $1 per acre. As a matter of course much of this class of lands is equal to any under cultivation, and capable of producing as good crops as can be raised in the State. Being found in almost if not all the counties in proportions greater than the improved lands, these tracts possess the peculiarities of soil and resources common to their respective locations. In Hopkins County, in the northern part of the State, the average price is about $3 per acre, the southern and eastern portion being timbered, the northern and western prairie. Ellis, Navarro, and Dallas, $1 to $5; soil black, waxy, capable of producing large crops of corn, wheat, rye, oats, barley, cotton, tobacco, &c. Anderson, value nominal, not exceeding 50 cents per acre, and capable of producing 1,000 pounds cotton to the acre, 40 bushels corn, 20 bushels wheat, 30 bushels oats. Hardin and Cherokee, $1 to $2; either timber or prairie, much of it very fertile. Houston, $1; will produce 25 bushels corn or 900 pounds seed-cotton to the acre. Trinity, generally held at $2 to $4, some large tracts to be had at 50 cents; lands good for cotton, corn, potatoes, tobacco, sugar, rice, &c. Falls, $3 per acre, suited to corn and cotton. McLennan, in tracts of 160 acres, $2; and $1.50 for larger tracts, one-third timber, two-thirds prairie, rich in quality. Bell County, $3, rich bottoms with or without timber, black loam with or without sand. Williamson County, $1 to $5 per acre, claimed to be equal to the best in Illinois, the soil on the prairies ranging from 3 to 15 feet in depth, underlaid with a species of potter's clay, 90 per cent. good tillable land. Washington, $5 for light sandy soil,

fitted for fruit culture, and $10 for good black land suitable for cotton. De Witt and Goliad, 50-cents to $5, embracing all varieties, from timber bottom and rich valley prairie, to light sandy post-oak and sandy upland prairie. Cameron has much back land that may be purchased at 12½ cents per acre, but generally in large tracts, five leagues (4,428 acres), or else in undivided rights in tracts of that size or larger; and even though the right be not over an acre, the owner has the run of the whole tract, in some instances over 100 leagues.

LOUISIANA.

THE State of Louisiana has an area of 26,461,440 acres, of which, according to the Commissioner of the General Land Office, 6,580,000 acres are yet to be disposed of as public land. About one-fifth of the total area of the State is embraced within the delta of the Mississippi, and subject to annual overflow. The other portions consist principally of level prairie, with a few hilly ranges in the north and west, and numerous depressions, or basins, in some sections. The best lands in Louisiana, are the bottom lands of the rivers where the rich surface mold is sometimes a thousand feet in depth; the swamp lands of Union Parish in the northern part of the State, which yields as well to-day as when they were first cultivated a hundred years ago; and a body of land extending along the Gulf coast for about ninety miles, and running back about seventy-five miles, embracing the parishes of St. Landry, Lafayette, Vermilion, St. Martin, and St. Mary. This tract contains about 3,000,000 acres of tillable land, nearly all of which is of inexhaustible fertility and capable of producing large crops of sugar, rice, and cotton, such fruits, as oranges, figs, grapes, &c., and garden vegetables, all the year round.

Dense forests still cover portions of this region. It is stated that there is sufficient timber in St. Mary's Parish alone to yield 10,000,000 cords of sugar wood, and that there are fifty thousand acres of swamp land capable of reclamation and of being converted into the richest rice-fields. Portions of the region embraced by these parishes are also admirably adapted to grazing. Vast herds of cattle and large flocks of sheep may be pastured upon the extensive natural meadows of the Opelousas prairie, extending seventy-five miles southwest and



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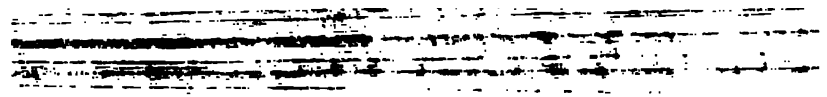

northeast, with a width of twenty-five miles. One man is said to own 12,000 head of cattle, and it is estimated that from 75,000 to 100,000 head are now grazing upon these premises. This "Opelousas prairie" contains upward of 1,200,000 acres, and is covered with rich grass. It is said that there are half a million acres of grass land not under fence in the parish of St. Landry alone.

There is no more fertile land in the United States than the bottoms along the Mississippi. For 300 miles, they are frequently, if not generally, lower than the bed of the river, necessitating an extensive system of levees or embankments for protection from inundation. During the war these were destroyed at various points, and extensive tracts of fertile land will probably remain subject to overflow until the levees are *reconstructed.*

"In the parish of Concordia are numerous mounds built by a former race, of intelligence and capacity superior to the Indians. They contain human bones, pottery, and arrow-heads. These elevations being beyond the reach of the annual overflow, are much prized for gardens and orchards."

The prairie regions of Louisiana frequently possess a thin, sandy soil, and are not remarkable for fertility. The uplands of the north and west, also possessing a scanty soil, contain large forests of pitch-pine, and afford oak, elms, cypress, and honey locust.

The climate of Louisiana is very mild, and the summers somewhat enervating to northern people. The malaria that rises from the stagnant water of the overflowed districts is the occasion of more or less fever in the lowlands every year. Some portions of the State are quite healthy, and the winter climate of Louisiana is delightful and salubrious.

Before the war, Louisiana was fast increasing in population and wealth. The population of the State in 1850, was 517,762; in 1860, 708,002. During the same ten years her acreage of cultivated land had doubled, and the value of farms and farm implements had trebled. Her crops of rice, tobacco, sugar, molasses, and some other products, had doubled. Her

cotton crop expanded fourfold, and orchard products fivefold. The Land Office Commissioner says :—

"The commerce of the State, both domestic and foreign, has been very extensive, and the admirable system of internal navigation, in which Louisiana excels highly favored neighbors, will yet place the State in the front rank of the world's commercial communities. To the direct navigation of the Mississippi, extending northward to the Falls of St. Anthony, some 2,000 miles, its greatest tributary, the Missouri, adds 3,000 miles, stretching up to the Rocky Mountains, the Ohio and its tributaries, 2,500 more, reaching the heart of the Alleghanies, and tapping the rim of the northern lake basin. To these aggregates, adding the numerous large affluents farther south, with their branches, we obtain a sum total approaching in round numbers 17,000 miles, pouring the products of fourteen States into the magazines of New Orleans for foreign exportation.

"This State, not realizing any special need of artificial routes in the face of such a system of internal communication, has not engaged extensively in railroad building. Yet in 1860, there were nearly 400 miles of road in operation, and soon the State will be in perfect communication with the great northern lakes by a continuous line of railroad."

Baton Rouge is the capital of the State. It is situated on a high bluff, on the left bank of the Mississippi, 130 miles above New Orleans. It is a well-built city, and surrounded by a rich agricultural region.

New Orleans, the greatest cotton mart of the world, and the commercial center of the Southwest, is situated on the Mississippi, 105 miles from the Gulf. The city occupies a bend of the river on its east bank, the shape of which originated for New Orleans its well-known title of the "Crescent City." The streets are lower than the surface of the river, requiring to be protected from the annual floods by levees. The city and its surroundings bear witness to the good taste, the refinement, and wealth of its citizens. The public buildings, the churches, and hotels, are on a scale of magnificence and

extent unsurpassed in any American city. The literary and benevolent institutions of New Orleans are of the highest grade, and are most liberally sustained.

New Orleans not only enjoys an extensive inland commerce, but has a large foreign trade with Europe and other countries. Her wharves are often crowded with the products of various climes, and the flags of many nations flutter along her two miles of river front. The numerous railroads constructed within the past fifteen years, to connect the Upper Mississippi with the Atlantic, have deflected a large proportion of the trade which formerly found its only outlet *via* New Orleans; but the "Crescent City" must always maintain a leading position among Southern cities.

We find, in a Louisiana paper, the following statements respecting the soil, climate, productions, &c., of St. Mary's Parish. The description is applicable to several parishes in southern Louisiana.

All of the lands of St. Mary's parish have a nearly level surface, the highest—except the islands above noticed—not being fifteen feet above tide-water. There is not an acre of poor land in the parish. Fields that have been cultivated in corn and sugar-cane for nearly a century, without manure, still produce good crops. Sugar-cane is a sure crop in all lands that are properly drained and cultivated. All of the land produces cotton, corn, sweet and Irish potatoes, cow peas, pumpkins, oats, grass, castor-oil beans, indigo plant, and most all kinds of garden vegetables. Our lands produce tobacco of an excellent quality and in abundance, when properly managed. Our swamp lands produce rice equal to any lands in the world. Our hilly islands produce grapes as bountifully as the soil of the best grape countries, and the scuppernong and several other kinds yield abundantly on the banks of all our bayous. Our islands produce splendid sea-island cotton and the finest article of tobacco.

GARDENS.—Garden vegetables grow in this parish the year round. Nearly all kinds of vegetables grow the same here as in the North and West. The winter gardens contain onions, shallots, leeks, garlic, beets, cabbage, carrots, turnips, lettuce, radish, cauliflowers, celery, &c., &c. Good gardeners have an abundance of vegetables fresh from the garden the year round.

CLIMATE.—Our parish is favored with a comfortable climate. Strangers from mountainous and hilly regions can not under-

stand how this can be, but we will submit a few facts on the subject.

This parish borders on the Gulf coast. We have healthful and cooling sea-breezes during the summer and fall. Persons sleeping in rooms that are well ventilated never complain of hot or uncomfortable nights, not even in July and August. Last summer, 1856, the thermometer in New York, Philadelphia, and other Northern cities, went up to 103—in a drug store in Franklin it never went above 90 degrees, as indicated by a perfect instrument hanging in the front room on Main Street. In July and August it is usually pretty hot in the sun, but it is always pleasant in the shade.

The first and lightest frosts seldom appear till in November. We have not the statistics of the weather in this locality, but those of the neighboring parish show that in the last seventeen years the first frost appeared three years in the latter part of October, eleven years in November, three years in December. Our winters here are merely Northern autumns.

HEALTH.—Our climate is decidedly healthful. Chills and fever and diarrhea are the principal diseases, and these are in numerous instances brought on by imprudence or carelessness, and usually yield readily to remedies if applied promptly. Congestive chills are extremely rare. Common fevers and chills yield to the simplest remedies, with which everybody is familiar. People seldom die either of fevers or diarrhea. Consumption is a rare complaint in this climate. Rheumatism and most other complaints of higher latitudes are rare in St. Mary.

SUGAR CROP AND TRADE.—Before the war our largest crop amounted to about forty-five thousand hogsheads of sugar, and sixty thousand barrels of molasses, made on about one hundred and seventy plantations. Thirteen thousand slaves were owned in this parish, valued at about six millions of dollars. Before the war, about fifteen steamers were engaged on these bayous, lakes, and bays in the busy season of the year, and as many as one hundred and twenty-five vessels have been cleared at the port of Franklin, for Northern and Southern ports, freighted with sugar, molasses and live oak, in one season.

The yield per acre is, in an ordinary season, a hogshead of sugar and fifty or sixty gallons of molasses; in a good crop year, double that amount. The sugar crop, is cultivated nearly the same as corn. In boiling the crop, it usually takes about three solid cords of wood to the hogshead. The crop, is laid by before July, and sugar making commences the latter part of October.

POPULATION.—Before the war the white population of the parish numbered about four thousand, and the largest vote ever cast was short of one thousand. Our people have always been noted for their hospitality, and for their love of law and order.

The majority of our people were decidedly opposed to secession, and were in favor of Bell and Douglas; but when Louisiana was declared out of the Union, nearly all sided strongly with the South, and as soon as the war was over they ardently desired peace, and intended to act in good faith toward the old Government and flag.

Northern people who have settled among us since the war will testify that they have been treated kindly by our people, and that they can live as securely here as anywhere in the West or North. The stranger and the freedman will be as fairly dealt with by a St. Mary judge and jury as the original citizens of the parish.

The following is extracted from the Report of the Agricultural Department for 1868 :—

Real Estate.—In the present unsettled condition of affairs in Louisiana, as in the other States of that section of the country, it is difficult to approximate the relative value of farm lands as compared with the census estimates of 1860. Our correspondents in no instance report the decrease in price at less than thirty-three per cent., and in some cases, give it as high as ninety per cent., the former figures being returned for Washington, and the latter for Tensas and Concordia, with no demand and few sales other than forced, and little money in the country to purchase. The average for the State, on the basis of these returns, is seventy per cent. Our Tensas correspondent writes: "Within a year two of the most valuable estates have been assessed by order of the court (the owner having deceased), and the value placed on land, with every necessary improvement, was $5 per acre for the cleared, and $10 per acre for the portion in timber. In 1859 about 400 acres of one of these places were sold at $125 per acre, and $18,000 in cash paid upon it, but within the past twelve months the purchaser obtained a release of the purchase by forfeiting this payment. During 1860, when the levees were intact, these same lands could not have been purchased for $130 per acre, and would readily have commanded that price at public sale. At this time the value of land is only nominal, and commands no stated price." Our Rapides correspondent says: "Well improved sugar and cotton plantations have no fixed price; few sales; no persons here able to buy; nearly all desiring to sell. Hundreds of thousands of well improved acres are now lying idle, there being no labor for them. The richest lands (no levees needed) are growing up in weeds, trees, &c. On my own plantation, where I have made over 1,000 hogsheads of sugar, 2,500 barrels of molasses, 15,000 bushels of corn, with hay, &c., with pastures for 500 head of horned cattle, large flocks of sheep and

hogs, mares and colts, I have this year less than 200 hogsheads of sugar, and but little corn; stock of cattle, sheep, hogs, mares, and colts all gone, destroyed during the war."

Under the heavy depreciation of plantations the market value of wild and unimproved lands must be but nominal, and our correspondents estimate them at from "but little value," to $3 per acre, according to location and resources. These lands are varied in character and quality, from light sandy loam on upland to heavily timbered bottoms and cypress swamps, the alluvial or red lands being of the richest kind when protected from overflow, and the light soil susceptible of thorough cultivation, and capable of producing good crops of corn and cotton.

In the soil and timber are to be found the chief resources of this State, but few minerals, except salt, having as yet been developed or discovered, though some coal, iron, and copper are reported to exist in Union Parish. Timber is abundant in all parts of the State, embracing many varieties of oak, ash, cottonwood, cypress, gum, elm, sycamore, pecan, hackberry, pine, &c., and presenting great inducements for development, some of the pine forests capable of producing quantities of turpentine.

On one of the islands within the limits of St. Mary's Parish—Petite Anse or Salt Island—there exists an immense bed of salt. By boring, parties have proved that the bed is half a mile square, and it may extend a mile or more. They have gone thirty-eight feet into the solid salt, and find no signs of the bottom of the stratum. The surface is about on a level with tide-water, and the earth covers the salt from eleven to thirty feet. On the surface of the salt they found a soil like that of the surrounding marshes, and above this sedge or marsh grass in a good state of preservation. Above the latter the soil appears to be the workings of the hill-sides above.

Cotton, sugar, corn, and potatoes are the principal crops in Louisiana, and before the war the cultivation of the first two named was very profitable, but our correspondents uniformly represent the production of cotton as ruinous to the planter during the past year. Jackson Parish reports two hundred pounds of lint cotton to the acre, fifteen bushels of corn, one hundred and fifty bushels of sweet potatoes, and twenty bushels of peas. Tensas Parish, one to one and a half bales to the acre in good season, fifty to seventy-five bushels of corn; in cultivation, nine acres of cotton allotted to one laborer, and five acres of corn. In Union Parish about six bales of cotton to the hand was expected before the war. In Carroll Parish cotton will produce six hundred pounds lint to the acre when newly cultivated, and a fair laborer can make eight bales of cotton and one hundred bushels of corn, yielding about $500 to the hand; but under the present system the average is two and a half bales cotton and

twenty-five bushels corn to the hand. Prior to the war the parish of Rapides produced from 30,000 to 40,000 bales cotton, 15,000 to 18,000 hogsheads sugar, and 30,000 barrels molasses, but the production has much deteriorated, though with the labor and capital at command, the capabilities are still as great. In the southern tier of parishes sugar, rice and tobacco are made specialties, and fruits are extensively grown, with great inducements for the increase of the latter production.

Louisiana possesses great capabilities for fruit culture, and the climate and soil present strong inducements to persons desiring to engage in such production. In St. Mary's Parish they have fruits of various kinds from April to November: "The Japan plum grows all winter and ripens in April; dewberries also ripen in April, and grow in abundance; strawberries, blackberries, and mulberries ripen in May; plums in June; peaches, quinces, and figs in July, and grapes and apples in August. The muscadine, a species of scuppernong, grows wild, and ripens in August; pears ripen in August, and grow in great perfection; oranges ripen in October, and usually remain good on the trees till December; bananas, limes, and lemons ripen in October." The yield of oranges per acre is enormous. Our correspondent writes that "it is usual to plant about one hundred trees to the acre below New Orleans on the river. Some orchards yield from $10,000 to $20,000 annually. A full-grown tree will bear 1,000 oranges, and a single tree has been known to yield 5,000 oranges. Trees commence bearing when five years old, when properly managed." What we quote in regard to the capabilities of this parish may be said, with slight variation, of most of the lower counties of the State, while in the more northern regions many of the fruits named grow in perfection, and in some localities the apple succeeds well. Our Rapides reporter writes: "I have a second crop of apples this year. They are hard, small, and poor, though they are eaten." In Washington Parish a small orchard, chiefly peaches, in one season yielded a profit of $4,000, the fruit being early and within close proximity to New Orleans markets. Our East Feliciana correspondent writes: "This is one of the finest fruit regions in the world. Apples, peaches, pears, quinces, plums, figs, grapes, berries, &c., do well, and wild blackberries grow in great abundance, from which a superior wine is made. We have, as yet, but few orchards. One man this season sold $600 worth of pears from fourteen trees." Though but little attention has heretofore been given to fruit culture, the capabilities of the State are so evident, and the inducements so strong, in a pecuniary point of view, that the production must, at an early day, become a leading interest of Louisiana.

CORRESPONDENCE.

OPELOUSAS, PARISH OF ST. LANDRY, LA., *August* 14, 1868.

FRED. B. GODDARD, Esq.:—

SIR: The character of the lands in this section of Louisiana is as follows: High prairie, gently undulating, forty feet above the highest overflow of the Mississippi River, interspersed with streams every five to seven miles, on whose banks are good bodies of most excellent timber. The soil is very fertile, producing sugar-cane, cotton, corn, potatoes (both Irish and sweet), peas, beans, rice, tobacco, pumpkins, turnips, rye, oats, barley, and some kinds of wheat; garden vegetables in the greatest profusion; and, in the way of fruit, figs of several qualities, peaches, plums, nectarines, pears, and seedling apples, raspberries, strawberries, and crab apples. The price of land ranges from $25 to $1 per acre, owing to distance from town and the improvements.

2d. The price of labor is from $10 to $15 per month; but we had rather not engage for planting purposes at these rates for money, but prefer giving an interest in the crop. We desire earnestly to see small farmers come among us and buy lands, rather than to come as hirelings.

Farmers are giving one-half of all the kinds of crops made, the laborer finding himself. Teams, land, houses, and implements are furnished.

3d. The climate is most delightful. This summer the thermometer has reached 92° but one day. The average of our summer heat is about 84°, and of our winter, 40°. In point of health, this region will compare with any portion of the continent. Our diseases are very mild, and readily yield to treatment. My early life was passed on the banks of the Hudson River, and I can truthfully say that I prefer this climate.

4th. We have no coal, but have, in the way of minerals, limestone, and black marble. Our timber is oak (several species), hickory, maple, ash, beech, pine, cypress, hackberry, elm, black locust, walnut, gum, sassafras, magnolia, and sweet bay. Mechanics pronounce this timber equal in quality to any in the whole country.

5th. The yield per acre of sugar is 1,600 pounds; cotton, 450 pounds; corn, well cultivated, 40 bushels; potatoes, from 250 to 350 bushels, and other products in proportion.

Hogs, cattle, horses, mules, and sheep are raised in abundance, and with little cost. The prices fluctuate with the demand. The grass of our prairies is most luxuriant and nutritious, and affords food for cattle nine months out of the twelve, and when cut and cured makes good hay.

6th. We are thirty-six hours' travel from New Orleans by steam. Boats run weekly. In a short time rail will bring us near. All produce can be easily transported to market.

7th. We have a good female school, and also a boys' school, besides several primary schools. There are two churches in the town, one Episcopalian, the other Methodist. Within the county are three or four others.

8th. Nearly the entire population are native-born. The majority are descendants of the original French settlers. Society is very good, and there is an average of intelligence.

In conclusion, I would say that God has made this the true poor man's land. He can labor the entire year, and, with much less than elsewhere, make more.

We have a large amount of public land yet vacant, which can be had for $20 per eighty acres. This includes the land, surveying, and all incidental expenses.

With a rich soil, an abundance of water, timber, and grass, a mild and genial climate, healthfulness, and a good market, we invite investigation.

I am, with respect,
Your obedient servant,
THOMAS MULLETT,
Cor. Sec. St. Landry Immigration Society.

From Plaquemine, Iberville, August 10, 1868, Mr. O. A. PEIRCE writes:—

* * We have the richest lands in the country; price, from $5 to $50 per acre. We need white labor, at from $12 to $25 per month. Our climate is very healthy. Population mostly French, Americans, and Germans.

A good blacksmith and a wheelwright, a tinner and a plumber, and a good physician, would find lucrative employment here. All parties and persons are at liberty to be what they please, but democrats are welcomed above all others.

ARKANSAS.

This State lies between Missouri on the north and Louisiana on the south; the Mississippi forms the greater portion of its eastern boundary, separating it from Kentucky and Tennessee. Upon the west is Indian Territory, where many tribes of Indians from various portions of the United States have settled, holding separate reservations of land which are secured to them by treaty, and guaranteed against the intrusion of white settlers. The several Indian nations form entirely distinct communities, and each has its own government, subject only to the sovereignty of the United States. The Indian Territory is a country of vast undulating plains, well watered, with a great deal of inexhaustibly fertile land, and possessing, according to those familiar with it, a delightful and salubrious climate. The Territory abounds in buffalo and other game, which are hunted by the Indians. Fort Smith, in Arkansas, upon the border, is noted as a depot of Indian supplies.

Arkansas is 242 miles in length from north to south, with a varying breadth of from 170 to 229 miles. Its area contains 33,406,720 acres, of which 11,700,000 are public lands, belonging to the United States. The present population of this State is about half a million. Arkansas is blessed with a delightful climate, very favorable for agricultural pursuits, and a soil which may be generally described as extremely fertile. In addition to the Mississippi River upon its eastern border, the Arkansas, one of the larger tributaries of the Mississippi, traverses the State in a southeasterly direction, dividing it into two nearly equal sections, and is navigable far beyond the limits of the State. The Red River, the White, St. Francis, and Washita, are also large and navigable streams, and all combine to render the State a highly favored one in respect

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to natural facilities for internal navigation. A portion of the Mississippi and Little Rock Railroad has been completed, and some hundreds of miles of additional railroad have been projected, and will probably soon be constructed. Arkansas presents a great diversity of surface features.

The eastern portion of the State, included in a belt or strip of territory along the Mississippi River, from 30 to 100 miles in width, is low and marshy, annually overflowed by the waters of the Mississippi, and covered with dense forests of cypress, gum, and sycamore, affording no sites suitable for large towns in its present condition. The country through which the St. Francis flows, in the northeast part of the State, is also swampy, alternating in lakes, marshes, and cypress forests. Westward from these swamp regions, the face of the country gradually rises and becomes hilly, interspersed with rolling prairies and extensive forests. Still further to the west it becomes more undulating and rugged, until it rises into the Ozark Mountains, which consist of numerous irregular ridges, seldom attaining an elevation of more than 1,500 or 2,000 feet.

The principal crops of Arkansas are cotton, corn, tobacco, and wheat. The soil of the bottom lands is of unbounded productiveness, and some of the uplands are very fertile, while others will hardly repay cultivation. In some portions of the State the smaller streams are dry in summer, and the land suffers from drought. Chills and fevers prevail in the low, swampy districts of Arkansas, as in other States where similar characteristics exist, but as a whole, the State is healthy. The uplands, especially, equal in salubrity the most favored regions of the West. In the ten years from 1850 to 1860, the amount of land under cultivation was largely increased and the value of farms and farm implements increased sixfold. Comparatively little attention has been given to manufactures in Arkansas. It is, however, stated that this branch of industry received considerable impetus during the civil war, but there are no statistics attainable to show its extent. Our communications from various parts of the State

nearly all refer to its mineral wealth, which consists chiefly of iron, coal, lead, zinc, manganese, gypsum, salt, and deposits of anthracite, cannel, and bituminous coal.

In regard to educational facilities, one of our correspondents says: "We have now the free school system just starting, under the supervision of the State authorities, and hope soon to equal our sister States of the Northeast in point of education. All religious societies are respected, but the people are mostly Methodists and Presbyterians."

One of the most remarkable features of Arkansas is its hot springs, which are situated sixty miles southwest of Little Rock, the capital of the State. These springs are much resorted to by invalids suffering from chronic diseases, such as rheumatism, &c., and many instances of remarkable cures are recorded in their favor. We have received from one of our correspondents, a copy of the Report of a Geological Reconnoissance of the counties of Arkansas, by David Dale Owen, in which we find that there are forty-two of these springs in Hot Springs County. They are of different degrees of temperature, varying with the changing seasons, and differing in their chemical properties. Mr. Owen says:—

I have been repeatedly asked to what I attributed the medical virtues of these waters. I reply, *mainly to their high temperatures.* Here, at the Hot Springs of Arkansas, there is the most abundant supply of water at a *scalding* temperature; several of the springs ranging, at the fountain-head, as high as 148° of Fahrenheit's thermometer, the waters of which, after being conducted in open troughs down the hill-side to the reservoirs above the bath-houses, and standing some time, are just as hot as the skin can bear, and the waste water conducted under the adjoining vapor bath-houses, sends up a steam, through the latticed floor, of a temperature so hot that few can endure it. If, then, the Warm Springs of Virginia, which have a temperature of only 96° to 98°, exercise, as experience has proved, a most potent effect in the cure of many diseases, "*mainly by their temperature,*" how much more positive must be the effect of waters of so much higher temperatures; especially when a stream of it, *in diameter as large as a man's arm,* can be directed, at pleasure, with great force, on any organ.

In many forms of chronic diseases especially, its effects are

truly astonishing. The copious diaphoresis which the hot-bath establishes, opens in itself, a main channel for the expulsion of principles injurious to health, made manifest by its peculiar odor; a similar effect, in a diminished degree, is also effected by drinking the hot water,—a common, indeed almost universal practice, among invalids at the Hot Springs.

The impression produced by the hot douche, as above described, is indeed powerful, arousing into action sluggish and torpid secretions; the languid circulation is thus purified of morbific matters, and thereby renewed vigor and healthful action are given both to the absorbents, lymphatics, and to the excretory apparatus,—a combined effect, which no medicine is capable of accomplishing.

Silica and carbonate of lime, the most abundant mineral constituents of the Hot Springs, can have comparatively little specific action on the animal functions. The carbonates of alkalies present, proved by the distinct alkaline reaction of the watery solution of the solid contents evaporated to dryness, can not be without their therapeutic effects, in common, however, with a great many of the well and spring waters of middle and southern Arkansas, which also contain some alkaline carbonates.

The large quantity of free carbonic acid which the water contains, and which rises in volumes through the water at the fountain of many of the springs, has undoubtedly an exhilarating effect on the system; and it is no doubt from the water of the Hot Springs coming to the surface charged with this gas, that invalids are enabled to drink it freely at a temperature at which ordinary tepid water, from which all the gas has been expelled by ebullition, would act as an emetic.

The small quantities of chlorides and sulphates of magnesia may have a slight medicinal effect; but there are not more of these salts present than are to be found in many spring and well waters employed for domestic purposes.

We give Dr. WILLIAM ELDERHORST's analysis of 1,000 grammes of water from the so-called "Arsenic Spring," to wit:—

	Grammes.
Lime	0.059024
Silicates	0.045600
Sulphuric acid	0.019400
Magnesia	0.007629
Chlorine	0.002275
Soda	0.004650
Potash	0.001560

In this analysis, the carbonic acid united with a portion of the lime and magnesia was not estimated.

The silicates, which were left undissolved on treating the residue obtained by evaporating the waters to dryness in a platina capsule, with hydrochloric acid, were fused with a mixture of carbonate of soda and potash, and qualitatively examined. They were found to contain silica, lime, magnesia, iron, and manganese.

There are numerous hotels and boarding-houses at the Hot Springs for the accommodations of invalids. Hot Springs County is a hilly or mountainous region, one of the ridges containing a large deposit of novaculite (Wachita oilstone or whetstone), which equals in whiteness, closeness of texture, and subdued waxy luster, the best varieties of Carrara marble. Some of this is wrought by the neighboring whetstone mills, but the greater quantity is transported to mills located at New Albany, Indiana, where it is sawed and fashioned into whetstone, and razor honestones. The firmer and harder varieties are used by the engraver.

The following, relative to the price of lands, &c., of Arkansas, is from a Report of the Department of Agriculture:—

1. Two counties, Newton and Benton, report considerable increase in prices of lands since 1860; others give an average decrease of 60 per cent. (varying from 20 to 90 per cent.) since 1860. Jefferson reports lands almost for nothing; farms worth $100 per acre before the war, would now bring hardly $5 per acre. Drew reports forced sales at what the creditor pleases to bid—sometimes only a few cents per acre; Clark, 80 to 90 per cent. decrease on best lands for cash, and no buyers at that; Montgomery, prices much depressed for two years after the war; but a good crop this year, and emigrants coming in, have brought them up to 25 or 30 per cent. of prices in 1860; Sebastian reports decrease at "ten-tenths," but looking up. The average depreciation for the State is 55 per cent.

2. Homesteads and other Government lands at usual rates in Johnson, Clark, and Conway counties; some very fertile, but few entries. Hilly, heavily timbered lands in Montgomery at $1.25; Madison, at $3; Benton, table-lands of Ozark Mountains, $3 to $5. These are fertile for cereals, fruits, peas, beans, &c. Johnson reports Government lands held by speculators at $5 to $8 for river lands, and $3 to $5 for uplands; and State lands, swamp and overflowed, at 50 to 75 cents—the same held by speculators at $1 to $3, and if good farm lands, $3 to $5; Sebastian river lands, $8 to $15, and uplands $2.50 to $5; produce cereals, potatoes, vegetables, and cotton; Union, various soils, at 75 cents; uplands

produce 200 to 300 pounds cotton, and ten to twenty bushels corn; St. Francis, varied soils, $1.25; will produce 400 pounds of cotton, 36 bushels of corn, or 20 bushels of wheat, or oats; Mississippi rice lands, annually overflowed and requiring levees, at 50 cents. Monroe, good black loam, at 50 cents to $10; will produce 500 pounds cotton, 30 bushels corn, and 25 bushels wheat; Prairie, hill or upland for 75 cents, and bottom land for $1. The upland prairie or timber lands will produce 35 bushels corn and 20 bushels wheat; under good system of cultivation, one-half more. In Drew, farms produce 200 to 300 pounds ginned cotton, 15 to 25 bushels corn, and 150 to 250 bushels sweet potatoes, without manuring; generally well timbered; forced sales at two and three cents per acre. In Clark, at forced sales, a section (640 acres) sold for $15, and a quarter (160 acres) for $5. No voluntary sales; money scarce.

3. Soils reported "rich" and "fertile," in Newton, Madison, Mississippi, Prairie, Conway, and Jefferson. Timber, of many varieties, reported in Newton, Madison, Sebastian, Union, Prairie, and White counties; pineries in Benton, Clark, and Prairie, and cypress forests in Monroe (timber can be floated to the mills in overflows at little cost), and Prairie counties. In Newton County lead and silver are found on the surface; in Madison, iron, coal, and lead; Montgomery, lead, silver, gold, and copper; Sebastian and Union, coal; White, coal and salt by boring; but all undeveloped except a little coal for smithing. Benton abounds in minerals undeveloped. Clark reports that since the demise of King Cotton they have no resources—"every thing lies around loose;" sandy lands abound in magnificent timber, but nothing is developed. Prairie County reports soil unsurpassed for farmers, timber for lumberers, black-oak and hides for tanners, railroad and river facilities abundant, healthy climate, good water, and plenty of good schools. Drew is the center of the cotton region, and well supplied with water facilities for transportation. Jefferson has excellent soil, pleasant climate, and healthy country, but all destitute.

4. Union, Mississippi, St. Francis, Clark, Prairie, White, and Conway report that cotton *was* their specialty, but likely to be abandoned. Sebastian, Monroe, White, and Drew report cotton and corn, the latter probably to supersede the former. Montgomery and Madison, corn for bread, and for feeding cattle and hogs for market. Newton, corn, wheat, and sorghum abundant, and with little labor. Johnson, wheat, corn, and potatoes for home market, and cotton for export. Sebastian, corn, cotton, and some wheat, but not cultivated in farmer-like manner. In Benton, apples are becoming a specialty; trees bear fruit at five years old; five to ten bushels at ten years old, the fruit selling at fifty cents, to be taken to Texas, where it commands high figures.

Prices reported in Montgomery: corn at 50 cents to $1, and raised at a profit of fifty to one hundred per cent.; in Johnson, corn, 60 to 75 cents; wheat $2; sweet potatoes, 50 cents per bushel; Sebastian, wheat at $1.50 to $2.

5. In Montgomery, white and red May. Walker is best, not so early, and therefore subject to rust. White May not so early as red, but a much prettier grain. In Newton, Mediterranean and Walker; Johnson, red May, Walker, and red and white Mediterranean, the latter yielding most when they succeed, but eight or ten days later; Benton, flint or May; Prairie, long bearded red, on account of the attacks of the small blackbird; White County, May wheat; Conway, little May; Drew, white and red winter. The earliest ripening always preferred on account of insects, birds, or disease. Usual sowing is in October and November; Newton and Madison in September, some as late as December, and in Prairie County, from October 15 to February 15. Harvest is in June, generally, but commences in some counties by the middle of May. In all cases they sow broadcast, generally on corn ground before the corn is removed, sometimes among the grass and weeds, and plow or harrow in. If the ground is first cultivated or plowed, the grain is brushed in Reporters generally state the yield at from five to thirty bushels, and agree that careful cultivation would greatly increase it. In Monroe and St. Francis little or no wheat is cultivated.

6. Principal wild grasses are crab-grass on the poor, and nimble Will on the richer lands; along rivers the cane shoots furnish pasture the year round; besides these, blue sedge on elevated timber lands, and winter grass on river lands in some counties; wild pea vines in the woods of Madison; blue-grass, red-top and timothy are natives in Benton County, and only need renewing every three or four years in Mississippi County; barren grass on sandy lands and a perennial on the black lands of Clark County; clovers, timothy, rye, and oats grow wild in Prairie County, and prairie and other grasses are named by some. No special pastures are grown, but cattle are turned out on ranges till after harvest, and grow fat. On cane lands they keep fat the whole year. In some counties from three to four months of foddering, with cotton seed and a little salt, is needed; pine, cane, and other thickets are sufficient shelter. Two acres of cotton seed will keep a cow well with wild pasture. Hence cost of keeping is merely nominal, and in many counties stock raising could be made profitable.

7. Except in Benton little or no attention is given to fruit-raising for profit, yet in all counties peaches and apples do well, in some very well in abundance and quality, save that acclimated apples must be raised for winter keeping. Figs do well in Clark, where peaches rarely fail, and apples not once in thirty years,

some trees yielding seventy-five bushels each. Prairie County has several large nurseries, and peaches and pears are larger and better flavored than at the North. Jefferson reports the pear and peach as succeeding best, and the Ouachita grape (now cultivated in France) as originating there, wild. Chickasaw plums, very fine, grow wild in great abundance in Montgomery, White, and Drew. And several varieties of excellent wild grapes are abundant in Johnson, Union, Benton, Drew (which reports gooseberries and currants as not succeeding well), and Jefferson. Cultivated sorts of grapes do not succeed well in Union, White, and Drew, as they are apt to mildew and rot. The want of enterprise and skill to raise fruit for market, and open facilities of transportation, alone prevent a number of counties from reaping profit from fruit cultivation.

CORRESPONDENCE.

LITTLE ROCK, ARKANSAS, *September* 11, 1868.

FRED'K B. GODDARD, Esq.:—

SIR: * * * The mountainous portions of our State abound in minerals of every variety. Take a State map for reference, begining in the northeastern part of the State. Greene County presents a continued surface of exceedingly rich Mississippi bottom lands. Randolph has a large proportion of rich bottom lands, the western part being hilly (with rich valleys), and indications of lead and iron ores. Lawrence has a large quantity of rich land, being a rich limestone soil throughout the county. Immense quantities of zinc, iron, and lead ores are in Lawrence, and can be easily worked. Fulton presents a very broken surface, with many rich creek valleys, and fine mineral prospects. Izard bears the same description as Fulton, with more rich valley land on White River. Marion alternates between mountainous and valley lands, and some prairie; much of the soil rich; and here zinc, iron, and lead ores are abundant, and coal is said to have been discovered recently in fine quantities. Carroll is partly mountainous and partly prairie, *very* good soil and abundance of lead ore. Benton is mostly rich prairie lands. Washington the same as Benton. Madison very mountainous, with rich valleys, and abundantly supplied with lead ore. Searcy same as Madison. Van Buren same. Independence, hilly, with rich valleys, and abounds in lead, lime, manganese, marble (very superior), iron, &c. Jackson, very rich bottom lands. Cross, Craighead, Crittenden, Mississippi, Phillips, Madison, Monroe, and Woodruff counties, are rich bottom lands, without minerals.

White is possessed of fine bottom and uplands, with some coal of good quality. Conway same as White. Pope has fine bottom lands, considerable hills, and abounds with fine coal and lead. Johnson, Franklin, and Crawford have fine soils and are the coal fields of Arkansas north of the Arkansas River, and these coals are very fine and abundant; also lead abounds in these counties. Sebastian is mostly prairie lands and rich, and one continued coal field of fine quality. Yell and Perry are mountainous, with fine rich valleys. Pulaski has large bodies of rich lands and some mountains, and here we find the rich Kellogg silver mines and iron in abundance. The State capitol is located at Little Rock. Prairie is nearly all prairie, and has some splendid lands, fine pasturage, and excellent navigation. Arkansas is made up of prairie and bottom lands of fine quality. Desha is all rich bottom, very fine. Jefferson, very rich lands. Saline, hilly, with very rich valleys and recently discovered silver mines, fine iron ore, &c. Montgomery, Scott, Polk, and Hot Springs counties are very mountainous, with rich valleys and fine indications of various kinds of rich ores. Gold has been found in Montgomery, and silver in Scott and Polk, but the distance from navigation retards their working as yet. The celebrated Hot Springs are in Hot Springs County, and have a world-wide reputation for their wonderful cures of rheumatism, and all chronic complaints and secret diseases. Dallas County presents a rolling surface, good lands, &c. Bradly, Drew, Ashley, Union, Ouachita, Columbia, and Hempstead are gently rolling sandy soils, with many rich valleys and fine ridges. Chicot is all rich bottom. Sevier is rich bottom mostly; and Pike is mostly rich bottom land, with mountains in the northern part, where the great Bellah silver mines are held by a company that neither works nor will allow any one else to work them. Clark County (I very near forgot) is mostly mountainous, but has some very rich lands known as the "rich lands" of "old Clark."

Thus I have given a brief sketch of each county as to soil and ores, and would here add that all the hilly and mountainous portions of the State are finely watered with never-failing springs of all qualities of water, such as pure freestone, lime, chalybeate, sulphur, &c. Timber of all varieties abound, except where prairies are mentioned above, such as oaks (white, black, red, post, willow, overcup, water, pine, Spanish, &c.), pine, cypress, ash, hickory (several varieties), gum (sweet and black), walnut, poplar, chincapin, elm, maple (sugar and common), lynn, &c.

* * * * *

I have been over Arkansas a great deal, and speak what I know when I assert that this State presents more advantages than any State in the Union, from the fact that we can grow abundance of corn, cotton, wheat, oats, rye, barley, sorghum,

potatoes (Irish and sweet), peaches, apples, pears, cherries, plums, apricots, and in grapes she excels—many fine varieties growing native on the hill-sides, and needing but little culture to make them as fine as the best.

I could say much more, but time presses and I must close.

Very respectfully,

JAMES A. MARTIN.

Mr. FRANKLIN DOSWELL writes from Jacksonport, in the White River Valley, August 8, 1868, that cotton, corn, and the castor bean, are the money crops, and that many farmers contend that stock-raising is the most profitable, and certain to bring money to the farmer. He continues:—

Going eastward from White and Black rivers, the traveler will find a level surface (to Crowley's Ridge), a distance of fifty miles, where he first ascends the high lands. He strikes a fine sand drift, of moderate fertility, though inexhaustible, producing about 35 bushels of corn, and 350 pounds of lint cotton to the acre. In favorable seasons, larger crops may be anticipated. This soil is not adapted to wheat and the perennial grasses, though it produces fair crops of oats, and abundant crops of rye. The timber is light, being scrubby oak, hickory, and dogwood. The lands are easily reclaimed, and considered the surest for cotton, and on these accounts are preferred by many.

Continuing eastward, the traveler finds a rich chocolate alluvium, with a heavy growth of red-gum, black-oak, black walnut, and some ash, with tear-blanket, pawpaw, and buckeye as undergrowth. These are fine lands, producing a bale (500 pounds) of cotton, 40 to 60 bushels of corn, and fair crops of wheat and grass. These lands, though of fine quality, friable and easily cultivated, are so heavily timbered as to render their reclamation difficult, but when reclaimed are much sought after.

Interspersed among these lands are tracts of tertiary blue clay, supporting a growth of post oak and water oak. These are our poorer lands, and until within a few years past, they were considered worthless, when it was discovered that they would produce fine crops of red-top, and are now regarded more favorably.

Returning to White or Black River, and going westward, the traveler finds an elevated, rolling country, becoming broken and mountainous as he proceeds, and watered by numerous streams of limpid water. The soil is varied in quality, but generally adapted to the cereals and grasses, as well as stock-raising. Vast quantities of our beef cattle find a market in St. Louis, New Orleans, and even California. Lands are cheap, the recent emanci-

pation of the slaves rendering labor very scarce. There is a universal disposition among owners of large tracts of land to realize. The mountain lands range from 12½ cents, the Government price, to $20 for fine improved farms of small size and convenient location. The mountain lands are appreciating in value more rapidly than any other, the recent fluctuation in the price of cotton, rendering the culture of that staple rather hazardous, upon a large scale. The bottom, or overflowed lands, vary from 75 cents to $10; the former the Government price, the latter for improved lands. The overflows confine the farmer on these lands to a more limited choice of crops. (Our overflows afford the farmer ample time to prepare for them as the rise is slow, and rarely continue over the fields longer than a week.) The lands to the east of White and Black rivers are more valuable, varying in price from 50 to 75 cents, Government price, to $30 for improved lands in the most favored localities. But lands are abundant and cheap. There is a disposition to sell, and a welcome for every honest immigrant, come from whatever quarter he may, and remunerative employment for every industrious laborer.

Agricultural labor is more in demand than any other. The supply is limited, and demand good.

The mountainous regions are as healthy as any portion of the world. The immigrant for a season or two, opening a new farm on the east of White or Black River, would be liable to malarious diseases, which however, are rarely fatal without great imprudence and exposure.

We have no coal, the geological formation being below the coal era. The Archimedes limestone caps the highest hills to the south and west of White River, but the strata dipping to the southwest, coal, as might be expected, is found on the Arkansas.

Mr. JOHN R. MCDANIEL, writes from Arkadelphia, Clark County, Arkansas, August 7, 1868:—

The character of the farming lands in this section is various; we have almost any kind. The lands cultivated for the most part are of the character known as black land and black sandy land in the upland regions, and the bottom land lying along the creeks and rivers; both and all of which are very productive, generally. There are, besides, sandy hill lands, not however of the kind found in the older and more eastern States, but rather productive. Immediately north, and beginning in this county, are ranges of hills and mountains. The price of land here now, is almost any thing that can be got for it, owing to the unsettled state of political affairs, the want of a proper system of labor, and the scarcity of money.

THE PACIFIC RAILROAD.

[The following interesting article upon the Pacific Railroad, was prepared for this work by Mr. EDWARD BLISS, formerly editor and proprietor of the *Rocky Mountain News*, published at Denver, Colorado. Mr. BLISS is familiar with the region traversed by the Railroad, and has enjoyed unusual facilities for forming a correct estimate of the national value and importance of this great enterprise.]

FOR nearly half a century after the organization of our Government, the vast plains stretching away to the west from the Missouri River, the grand old mountains forming the vertebral column of the continent, and the wilderness intervening between these last and the Pacific Ocean, remained almost a sealed book to the explorer and the historian. The former were in the undisputed possession of wild and savage tribes, who roamed over them at will, inflicting barbarous torture and death upon those of the white race who had the temerity to invade their hunting-grounds, or seek to occupy the soil; the mountains rose like a giant barrier, frowning upon every effort to penetrate their grand and gloomy solitudes, while beyond lay a *terra incognita*, veiled in mystery and resting in the shadows of vague tradition.

At long intervals during this period, a few daring and intrepid explorers had penetrated these regions, returning with meager and hurriedly collected information, which served only to sharpen public curiosity and increase the desire for further knowledge concerning them. With a national claim to all this vast heritage, our Government was only in nominal possession. The maps and school atlases from which many not yet past life's prime derived their early geographical knowledge, disposed of this portion of the United States possessions as "Indian Territory," and where descriptions were ventured, they were vague and unsatisfactory because of the conflicting authorities upon which they were predicated.

Lewis and Clark commanded the first expedition sent across

the continent for the express purpose of official exploration. But the course selected carried them far to the north, along the devious channel of the Missouri, and away from the routes which many years later were found more advantageous and more practicable, leaving all that region embraced within the 36th and 46th parallels of latitude still enveloped in obscurity and mystery. For forty years after the Lewis and Clark expedition, settlements between the Missouri River and Pacific Ocean were confined to a few scattered military posts along the frontiers; and not until the discovery of gold in California did the world become familiar with the climatic and geographical characteristics of the great central portions of the Continent.

THE NECESSITY OF A CONTINENTAL RAILWAY.

The inception of a grand trans-continental railway, to connect the Atlantic and Pacific, dates back for many years. The unsuccessful effort made by Whitney to enlist the General Government in a giant scheme for this purpose, is fresh in the recollection of the people. But his plans and projects were then far in advance of existing public necessities, and carried on their face such glaring speculative features, that the Government, at that time unaccustomed to enormous public expenditures, shrank from any serious consideration of his propositions. With all the arguments advanced for the construction of a railway across the continent, the culminating and convincing one was not reached until the breaking out of the Rebellion.

The first flash of war revealed the dangerous position occupied by the Pacific States. Separated from the home Government by an interval of three thousand miles, two-thirds of this distance without water or rail communication; accessible only by the ocean routes, *via* the Isthmus, subject at any time to serious interruption, and involving nearly a month's time, under most favoring circumstances, in the transmission of men and munitions,—the flourishing Pacific States were

practically cut off from all home protection and support, in the event of war with a foreign power. The general alarm prevailing throughout the Pacific coast when less than a half dozen "Confederate" cruisers were known to be afloat, and the temporary derangement of long-established agencies for the shipment of treasure, illustrated most forcibly the defenseless condition of that portion of our country, and doubtless stimulated the prompt and energetic means adopted by the Government to remedy this glaring and dangerous defect in her system of co-operative protection. The construction of a trans-continental railway to the Pacific became a military necessity, and a thorough discussion of the subject resulted in an organization, whose grand energies and herculean efforts have already astonished the world.

ORGANIZATION OF THE UNION PACIFIC RAILROAD.

The Union Pacific Railroad received its charter from Congress in July, 1862. From that time until 1865, during which interval several amendatory acts were passed, the company made little progress further than in perfecting the organization and preparing the way for the grand work before them. During the latter year, ground was first broken at Omaha, the eastern terminus of the road, and thereafter the work was pushed forward with a rapidity unexampled in the history of railroad engineering. The munificent subsidies and land grants made by the Government to the company, were golden incentives to the wonderfully rapid construction of the road. Twenty alternate sections of land (12,800 acres) per mile of the public domain through which the road runs, and a special loan of 6 per cent. bonds of the United States, were granted in aid of this line, the latter payable upon the completion of each consecutive forty miles of track, in installments at the rate of sixteen thousand dollars per mile; thus affording the company unusual facilities for the rapid and substantial building of the line.

DIFFICULTIES FIRST ENCOUNTERED.

And yet, the first labor upon the road was attended with serious obstacles and enormous outlays. Omaha at that time had no railroad communication with the East, and every article and implement used in the construction of the road had to be transported nearly two hundred miles in wagon-trains. Even after a sufficient number of miles had been completed to warrant the issue of bonds, capitalists were for a time reluctant to invest in these securities, fearing that insurmountable obstacles would prevent or delay the completion of the line to the Pacific. Time was required to dissipate these doubts and inspire public confidence. But the men who were intrusted with the general management of the affairs of the company, exhibited an energy and perseverance equal to every emergency. They fully realized that "miles upon miles" of road must be constructed, equipped, and in actual commission, before the incredulity of moneyed men could be sufficiently overcome to induce them to invest in the company's bonds.

Fortunately, laborers could be obtained in abundance, and as the first five hundred miles of the route extended along the level plain of the Platte River bottoms, rapid construction was rendered comparatively easy. But the working parties of the line often had to perform double duties. The Indians regarded this encroachment upon their former haunts with growing jealousy and suspicion, and frequently interrupted the progress of the work by bold attacks along the line. On these occasions the pick and shovel were temporarily thrown aside, the rifle and pistol substituted in their place, and peaceful laborers were transformed into little armies, ready to repel and punish the attempts of the savages to retard this great work of internal improvement.

The incidental history connected with the construction of the Union Pacific Railroad—the thrilling and often perilous experience of the brave and sinewy men who were the muscular pioneers of the work—if faithfully written, would make a

volume of almost romantic interest. A large majority of the men employed were formerly in the army, and have engaged in this labor with all that hardy confidence and eager love of adventure which camp life invariably inspires. The dangers and difficulties encountered have only served to give zest to the daily routine of duty and break its monotony.

MAGICAL GROWTH OF TOWNS AND CITIES.

The rapid progress westward of the Union Pacific Railroad, was not without an accompanying birth and magical growth of towns and cities along its line. Wherever a temporary halt occurred in the work of track-laying, there quickly gathered crowds of "camp-followers," and almost in the twinkling of an eye, all the characteristics of a busy settlement flourished, where perhaps yesterday only prairie and meadow were to be seen. At Julesburg—a place familiar to all travelers by the old overland route, as a stage station—a city numbering several thousand people rapidly arose when the railroad had reached that point. The frail and portable materials of which it was built, gave it the appearance of a "paper city;" but its thronged streets, its busy marts, and the exhaustless energy of those who dealt in corner lots and business sites, more than realized the miraculous creations of Aladdin with his wonderful lamp.

A few months later the railroad had left this mushroom city far in the rear, and halting to gain breath before it began the ascent of the Black Hills, another city more thrifty and more promising than the first, leaped up from the wilderness and nestled around its path. Then a large majority of the population of Julesburg, folded their tents like the Arabs, and silently stole away; and following the magnetic highway laid down before them, soon enrolled themselves among the merchants, bankers, and professional men of the new city of CHEYENNE. Here the improvements have been of a more substantial character; and as this city will doubtless

be the point of connection for the railroad from Denver, it has elements of permanence and prosperity to sustain it.

Farther west—at Sherman, Laramie, Benton, Green River, and Bear City—other flourishing settlements have marked the advance of the Union Pacific; and doubtless this will be a characteristic feature of its progress. The durability and growth of these *avant couriers* of civilization and development, depend much upon the local advantages of soil, climate, and mineral productiveness—sustaining forces without which a vigorous and healthy existence can not long be enjoyed. Doubtless, an occasional embryo city will bask for a brief season in a delicious dream of municipal consequence, and relapse once more into that insignificance to which nature originally assigned it; but at numerous points along the line, thriving towns and cities are destined to spring up and contribute bountifully to the way-traffic of the road.

BUSINESS OF THE ROAD.

Already the business of the completed portion of the Union Pacific Road has assumed a magnitude vastly exceeding the most sanguine hopes of the company. Without a single connecting branch yet constructed—with several hundred miles still intervening between its farthest western point and the Central Pacific line—the earnings of the road for the year 1868 will foot up the enormous sum of over *five millions of dollars!* When it is borne in mind that the freight and passenger traffic of Utah, Montana, Idaho, and Nevada, are not yet secured—that the flourishing Pacific States are still unable to avail themselves of overland facilities for commercial purposes—that no portion of the extensive travel and traffic *via* Panama has yet been diverted from that long-established route—some faint idea can be gained of the immense business which will gather at both extremities, and at every connection, when an unbroken link of iron rail extends from New York to San Francisco.

There are other auguries of a brilliant future for the Pacific

railroad lines. The commerce of India, China, and Japan is expanding rapidly under the magical touch of an advancing civilization, and lines of steamers across the Pacific have already transformed the once distant Mongolians into near neighbors. The day is not remote when the long and perilous voyage around the "capes" will be exchanged for the securities and delights of a pleasure trip around the world. Steam will literally "take the wind from the sails" of commerce, and triumph over the fitful breezes of every sea. The swarming millions of eastern Asia, with increased intelligence and knowledge of the outer world, and improved facilities for escape from their overcrowded homes, will break away from old associations, and flock to a land where personal and conscientious liberty go hand in hand. Already the mountains and valleys of the Pacific coast have attracted thousands across the sea; but when the railroad is completed, a countless throng of the "children of the sun" will gather on our shores, pass swiftly to the summit of the Sierras, and fill the great Basin with the fruits of patient industry and enterprise. Nor is the hope a baseless one, that the broad and fertile fields of the sunny South, now languishing for the want of appropriate labor, may find important advantage in the introduction of Chinese workmen.

HOW THE ROAD WILL AID THE NEW TERRITORIES.

General as will be the satisfaction and joy experienced over the completion of the Pacific Railroad, there are special communities which will celebrate this event with an enthusiasm inspired by peculiar advantages. The miners and settlers of Colorado, Wyoming, Montana, and Idaho—remembering the years of isolation and danger through which they have struggled to a territorial condition—will hail the inauguration of uninterrupted rail communication across the continent with wild demonstrations. Long and perilous journeys across the plains and over the mountains—sleepless vigilance on numerous occasions when Indian attacks were apprehended—scanty

supplies of provisions, and inadequate shelter from stormy weather—these were the common lot of the people of those remote regions who first sought to redeem the wilderness and develop its hidden wealth. The first shrill blast of the whistling engine will dissipate all these perplexities and dangers, and enable many a weary and worn exile from his friends once more to gladden their hearts with familiar greetings. Thousands who dared not ask their wives and children to share with them the privations and perils of pioneering, will soon summon them to the comforts and conveniences which the railroad will have made accessible; while other thousands, no longer timid and apprehensive, will join the swelling tide to these rich and attractive regions

Extensive and inexhaustible as the mines of these Territories are known to be, many of them have met with slow development because of their remoteness from routes of transportation. The cost of opening and proving some of these mines, and providing them with proper machinery, has been almost fabulous. The enormous expense of transporting heavy engines and ponderous stamps for a distance of from 600 to 1,200 miles, by slow wagon trains from the Missouri River, has often vastly exceeded the original cost of the machinery. These serious obstacles to the prosperity of the Territories above named will soon be entirely overcome. The cost of labor, too, will sensibly decrease as emigrants flock to the mineral districts; and, with increased yields and diminished outlays, the profits will well repay the miner for all past disappointments.

PROSPECTS OF FUTURE MINERAL DEVELOPMENT.

The Union Pacific Railroad traverses for a long distance a section of country known to be rich in the precious metals, but which was not accessible and convenient before the approach of rail communication. The Black Hills have been prospected at different points with gratifying results. Farther west—along the Rocky, the Medicine Bow, and Wasatch

ranges—abundant indications exist of the presence of gold and silver. With cheap labor, cheap supplies, and the protecting and encouraging influences which are inseparable from the proximity of the railroad, these mountains will soon be pierced and searched thoroughly. The effects of new and important gold discoveries are well known. No other attraction possesses such magnetic power over the mind of man as the well-founded prospect of securing a profitable gold mine. No other impulse will so rapidly and magically transform the solitude of a wilderness into the dwelling-places of a thronging population. The history of California, of Nevada, and of all the other States and Territories where the precious metals abound, so abundantly proves the truth of this proposition, that it can neither be gainsayed nor questioned.

It is reasonable, therefore, to predict that the development of the golden resources of the great central region through which the Union Pacific Railroad passes, will be attended with a corresponding growth of prosperous towns and cities along its route, forming necessary bases of supplies for those who explore the country on either flank.

The force necessary to maintain and operate the railroad after its completion will, of itself, constitute a small army of men; and thousands who have assisted in the work of construction, charmed with the natural beauty and prolificness of the country through which they have toiled, will locate at favorable points, and soon become important contributors to the way-business of the line. As an auxiliary in the great work of peopling and developing the interior and western portions of our national domain, the Pacific Railroad must take precedence over all other agencies. The restlessness of the American people is almost a national characteristic; and there is no point so distant or remote where they will not venture, provided rapid and cheap transportation make that point conveniently accessible. The allurements of mining—the advantages offered for obtaining land at nominal prices—the superior climate and almost ravishing beauties of the combined mountain and plains system, occupying the central

region—will all prove more attractive when the completion of the great railroad brings them within striking distance of the emigrant and the pioneer.

CLIMATIC AND SANITARY ADVANTAGES.

The Pacific Railroad maintains throughout its entire extent almost a due west course from the Missouri River, varying less than a single degree in deflection until it reaches the center of the State of Nevada, going west. From this point it runs in a southwesterly direction across the Sierra Nevadas, terminating at Sacramento, about the 38th parallel. With this exception, the road occupies a position between the 41st and 42d parallels of latitude, enjoying all the climatic advantages embraced within these limits. The healthfulness of this entire region has been favorably determined by years of experience on the part of mountaineers, trappers, and others who have sojourned there from an early period, as well as by more recent and more extensive opportunities which the numerous settlements therein have afforded. The configuration of the country referred to effectually protects it from miasmatic influences. The atmosphere is dry, pure, and bracing, and often freshened by the cool mountain breezes which sweep over the plains. Invalids in the early stages of consumption, or suffering from bronchial or asthmatic complaints, speedily find relief in the elevated portions of these regions, and often entirely recover.

There are numerous thermal and mineral springs scattered throughout Colorado, Utah, and Nevada, some of them possessing extraordinary curative properties for cutaneous and other diseases. These will in time become favorite places of resort for the invalid and pleasure-seeker. Without doubt another season will find no inconsiderable proportion of the summer-resorting public turning their faces toward the Rocky Mountains. The monotonous and barren frivolities of fashionable watering-places and sea-side haunts will dwindle into insignificance before the unrivaled grandeur and magnificence of the Great Mountains, and the dazzling beauties which cluster around their summits.

THE ROAD EQUIPMENTS.

Those who may have imagined that a railroad trip across the continent involved many perplexities and privations not common to railway lines throughout the East, will be pleased to know that on no other route in our country have more superior accommodations been furnished for the comfort and convenience of the traveler. The equipments of the Union Pacific Railroad are on a scale of ampleness and excellence possessed by few other roads in the world. The locomotives are of the very best class, and the passenger cars combine all the modern appliances of comfort and luxury. PULLMAN'S magnificent line of palace cars daily pass over the road, affording to the traveler all the accommodations of the best appointed hotel. Seated in one of these elegant carriages, the passenger may enjoy fully the enchanting scenery of the route, and if he chooses may remain in his quarters throughout the entire journey.

Ample provision has been made for the accommodation of emigrants and their families, and as the business of the road increases, lower rates of fare will rule, which are at present far above the tariffs of other roads.

The freight accommodations of the Union Pacific Railroad are on a scale commensurate with the immense prospective business of the road. Even while we write, forty car-loads of cattle pass over the road daily, bound East. Who will venture to predict the ratio of increase for this branch of business alone, when the millions of acres of excellent pasture land rolling away to the Pacific are covered with the countless herds they are capable of supporting?

THOMAS C. DURANT.

We can not more appropriately conclude this brief consideration of the progress of the Union Pacific Railroad, than with a passing tribute to the sleepless energy, the indomitable

perseverance, and never flagging industry of THOMAS C. DURANT, Vice-President of the road. Giving his personal supervision to the work of construction, he has stimulated the efforts of every subordinate employed on the line, and aroused a feeling of pride which has grown into individual enthusiasm. It is not too much to assert that from the first breaking of ground at Omaha, in 1865, Mr. DURANT has been more active and useful in this gigantic enterprise than any other person. Difficulties and obstacles from which others would have shrunk despairingly, were grappled with and removed by the exercise of his consummate judgment and skill. Fully realizing the magnitude and importance of the work, he brought every energy and qualification he possessed to aid in its advancement, and the results attest the wisdom and ability with which he has discharged his trust.

THE CENTRAL PACIFIC RAILROAD.

WHILE the "Union Pacific Railroad," by reason of its immediate connection with the great railroad system of the United States, has attracted more general attention than any other constructing line in the world, the "CENTRAL PACIFIC RAILROAD OF CALIFORNIA"—the western division of the great trans-continental road—has exhibited a corresponding wonderful progress. With the same liberal aid from Government, and prospectively enjoying the same business advantages as the "Union Pacific," the California line has been pushed forward from the Pacific coast, across the Sierra Nevada Mountains, and is advancing rapidly to meet the eastern division.

ORGANIZATION OF THE COMPANY, ETC.

The organization of the Central Pacific Company dates back to 1861, when a charter was granted by the Legislature of California. The State conferred important franchises in aid of the construction of the road, which, in addition to the sub-

sidies and grants from the General Government, furnished abundant resources for a vigorous prosecution of the work. The acts of Congress, authorizing the building of a railway from the Missouri River to the Pacific, offered the same encouragement and aid to the "Central Pacific" as to the "Union Pacific;" but the inauguration of work on the two roads was attended with widely different conditions and strongly contrasted experiences. The eastern line had a level and unbroken country to traverse for several hundred miles, where engineers met with no perplexity, and workmen with no serious interruption. But the Central Pacific encountered at the outset the most formidable and most difficult obstacles. Less than twenty-five miles from the initial point, Sacramento, the spurs of the Sierra Nevada range were reached, and thence, for a distance of one hundred and fifty miles, the route ran through a region of lofty mountain ranges, frowning precipices, and almost fathomless ravines. It was literally *up-hill* work all the way. To illustrate more forcibly the character of the work and the expense attending it, one item may be mentioned: the blasting powder alone for the first one hundred and forty miles cost $900,000 in gold! On some portions of the completed line, the cost of grading has exceeded $300,000 per mile.

But with ample means to meet these enormous outlays, and an army of willing and industrious laborers, the ascent and passage of the Sierra Nevadas was accomplished in a manner and with a rapidity highly creditable to the engineers in charge. Frequent tunnels occur along this portion of the route, one of which is about 1,700 feet in length. Deep rock cuttings are of course numerous, and long lines of trestle-work span the wide ravines. Probably no similar extent of road in the world presents so many grand and startling illustrations of railway engineering and skill as this. The best materials have been used in every department of the work. The culverts and bridge foundations are of solid masonry wherever such materials were practicable, and the road-bed itself is necessarily as firm as the everlasting hills.

THE GREAT TRADE OF THE WORLD.

The people of the Pacific coast experience a just feeling of pride in the Central Pacific Road, and look forward to its completion as the dawn of a brilliant future for that entire region. Already every branch of commercial industry on the coast has begun to glow with new life, in anticipation of the impulse which a finished railway communication across the continent will give to trade and enterprise. Eastern Asia and Japan, the innumerable islands of the Pacific, and farther India, will all contribute to the wonderful traffic which will mingle in a common current and float to the western terminus of the Pacific Railroad. The land and water systems of the world seem to have been specially arranged to make this great route a highway for the nations of the earth. Over no same extent of territory on the globe could a railway be constructed, combining such important and multiplied advantages as this road will command.

CONNECTIONS OF THE CENTRAL PACIFIC.

The present and prospective connections of this road may be briefly stated as follows: at the western terminus, Sacramento, with a daily line of steamers for San Francisco, and also with the Western Pacific Railroad now building to San Francisco, *via* Stockton; with the Sacramento Valley Railroad, for Placerville; the California Central and Northern railroads, for Oregon; and with the San Joaquin Valley and Southern Pacific railroads, projected to the southern boundary of California

At Reno, 154 miles east of Sacramento, the Virginia and Truckee Railroad (17 miles) will extend to the Washoe mining regions, securing the already important business of that rich region. Farther east, at the north bend of the Humboldt, it will connect with the Oregon branch of the Pacific Railroad, for which a bill has already been introduced in Congress, and which contemplates a line of 350 miles, from Eugene City,

near Portland, *via* the Willamette Valley, to connect with the main trunk-line on the Central Pacific, as above. From this point also, the Humboldt and Idaho Railroad (125 miles) is projected, extending into the center of the rich mining regions of Idaho, and designed for ultimate connection with the proposed Northern Pacific Railroad.

At or near Salt Lake the Central Pacific will link its duties and destinies with the Union Pacific Railroad, from which event will date the commencement of a railway traffic more extended and more immense than words and figures can adevuately describe.

The same general reflections upon the influences which prompted the inauguration of the Union Pacific, and the elements of prosperity it possesses, will apply equally to the Central Pacific Railroad. Both these roads enjoy a common heritage, and each will receive an equal meed of endorsement and support at the hands of the great business world. The interests of the two are identical, and can not fail to blend together in profitable harmony. Whatever contributes to the pride and prosperity ot the one, will equally advance and promote the welfare of the other. To all intents and purposes the Union Pacific and Central Pacific organizations are one, and without doubt a consolidation will be effected soon after the completion of the line, by which the entire road will be under one management.

No fear need be entertained that the Pacific Railroad will become a giant monopoly, or adopt a business policy in any degree unjust or oppressive. The great aim of this road will be to earn the good will as well as the business of the public, and command the confidence of commercial men. It will for a time be without a rival; but other and powerful organizations are already in the field, and not many years will pass away before a brisk competition for the increasing traffic across this continent, will spring up. The "Southern Pacific," the "Northern Pacific," and perhaps other through lines, will have to be built before the growing commerce of the next twenty-five years will be fully provided for.

LOW FARE AND FREIGHT RATES.

The munificent land grants and subsidies which have been bestowed upon these roads, are equivalent to a withdrawal from the national resources of a vast portion of the public domain originally held for pre-emption. In fact, the people of our country are the real builders and proprietors of the Pacific Railroad, and for their benefit and prosperity should it be maintained and conducted. Liberal freight and passenger tariffs ought to be adopted at the earliest practicable moment. The quicker the wonderful advantages and vast wealth of the region through which the great railroad passes, can be examined and appreciated by the restless public, the more speedy will be its settlement and development. The policy of the Mormon leaders, who found an advantage to their colony in defraying the expenses of those who desired to emigrate to "Deseret"—may not prove an unprofitable study for the Pacific Railroad directors. High rates of fare can not be long maintained without serious damage to any transportation line. If it is to cost as much to cross the plains and mountains to California by rail, as it formerly did to make the same journey by stage-coach, thousands who have fondly hoped to make that trip will abandon their purpose altogether, or select a more economical route.

It should, and no doubt will, be the policy of the companies owning so many millions of acres of wild land, to realize a rapid and profitable sale of this vast estate. The early occupancy and improvement of these lands will necessarily involve an immense increase of the business of the road; and cheap fares and low freights will attract an eager and anxious throng.

CHARACTER OF LANDS ALONG THE LINE.

The character of soil for 400 miles west of the Missouri River, and lying near the route of the Union Pacific Road, may be described as of great fertility, and possessing superior productive qualities. Elsewhere in this book—in the chapters

devoted to Nebraska and Wyoming, the author has given a more detailed account of the geographical features of the Platte Valley and Laramie Plains, through which the railroad extends. The lands ceded to the company, although not fully surveyed and platted, are now open to occupancy by the settler, whose claim and title will be confirmed when the offices of the land department of the road are established and ready for business.

The Central Pacific Road, by reason of its more lengthy mountain route, has not the same extent of agricultural land to offer to the settler as the Union Pacific, but it is by no means destitute. The valley of the Humboldt River, for a distance of 300 miles, is traversed by the Central Pacific, and this region contains some good land and an abundance of wood and water. The close proximity of this valley to rich mineral regions, and the ready and profitable market which such regions furnish for agricultural products, will make every available acre a flourishing garden or well cultivated farm. In the valley of the Sacramento River, the company has large quantities of bottom lands, subject to annual overflow, and possessed of great fertility. In garden products these bottoms challenge the world, and many varieties of semi-tropical fruits are cultivated successfully. The almond, olive, and pomegranate, thrive well. The season of grass-growing commences immediately after the rains of December, and continues until summer heat, when hay cures standing, affording abundant forage for cattle, and other stock. Even far up in the mountain range, small valleys nestle among the hills, furnishing excellent farming lands, where numerous dairies and sheep ranges are maintained.

CONCLUSION.

In a general way we have thus briefly considered the characteristics, the advantages, and the prospects of the great Pacific Railroad. As a national work it stands without a rival in our grand system of internal improvement—a monu-

ment of the inexhaustible resources and indomitable enterprise of the American people. The world has watched its progress with looks of amazement and awe, startled by the facility and rapidity with which the great mountain barriers have been crossed; and marveling how our young Republic—still staggering under the effects of a terrible civil war—could display such wonderful recuperative energy and strength. We can not resist the conviction that the future of this great road will have an important influence upon the whole civilized world. The people of every land and clime will cluster along its sides, giving and receiving the multiplied benefits which a peaceful mingling of nationalities can not fail to insure. It will give renewed security and confidence to our Government, concentrating and strengthening the great elements of power possessed by the nation, and reducing the possibilities of future international disturbances. A band of strength, a bond of union, a harbinger of prolonged peace and prosperity to our young and thriving Republic.

WAGES OF FARM LABOR IN THE UNITED STATES.

MANY young men in the Atlantic States, who desire to go from home and strike out for themselves, as well as many foreign emigrants, have neither the means nor the disposition to settle down at once as farm owners, and therefore seek for employment. Some skillful mechanics may act wisely in going to the large cities, but the young man who knows how to work a farm has, if he will only realize it, the most honorable, healthful, and enviable calling in the world. He should resolutely turn his back upon the cooped-up city, and go out where he can breathe, and be respected and independent.

A man who is willing to work may find steady employment, at fair wages, as a farm hand, in almost any part of the United States, and can lay up as much or more money than he can in the city, where, if the pay be larger, the cost of living is higher, and the inducements to spend money greater. In addition, he is becoming familiar with the section of country, and getting new ideas of farming, which will be useful to him by and by. And the foreigner who hires out upon a farm for the first few months or years, is acquiring not only the information above alluded to, but acquainting himself with the manners and customs, and perhaps learning the language, of the country. The demand for farm labor was never so great as now, and it is constantly increasing. Farm wages in America are much higher than in Europe, and the opportunities for social and personal advancement are tenfold greater. Some of the most prominent men in this country came here poor and friendless, and began by working for wages.

In 1866 the rate of wages paid for farm labor throughout the United States showed an increase in five years of about fifty per cent. The following tables, compiled with great care from returns made by correspondents throughout the country to the Agricultural Department at Washington, will be valuable to emigrants:—

Table showing the average rate of wages of agricultural labor per month, when employed for the year.

STATES AND TERRITORIES.	Per month, for the year (without board).	Per month, for the year (with board).	Per month, for the season (without board).	Per month, for the season (with board).
Maine	$27 00	$17 44	$31 76	$23 07
New Hampshire	32 74	22 48	39 12	28 43
Vermont	32 84	21 00	37 44	25 72
Massachusetts	38 94	22 36	41 61	27 83
Rhode Island	34 40	20 50	40 00	26 33
Connecticut	34 25	21 54	39 66	28 30
New York	29 57	19 32	34 88	24 26
New Jersey	32 27	18 98	33 13	23 78
Pennsylvania	29 91	18 84	34 10	22 87
Delaware	24 93	13 25	26 25	15 25
Maryland	20 36	12 76	23 83	15 58
Virginia	14 82	9 36	17 21	12 09
North Carolina	13 46	8 15	15 18	10 00
South Carolina	12 00	7 66	14 00	9 46
Georgia	15 51	9 67	18 45	12 07
Florida	18 00	12 12	20 55	14 46
Alabama	13 40	9 80	16 38	11 00
Mississippi	16 72	11 58	22 58	16 80
Louisiana	20 50	12 42	22 25	18 34
Texas	19 00	12 72	23 73	16 76
Arkansas	24 21	15 80	29 61	19 46
Tennessee	19 00	12 58	22 00	16 61
West Virginia	25 35	16 47	29 34	21 20
Kentucky	20 23	13 65	23 80	17 06
Missouri	26 75	18 08	30 84	21 66
Illinois	28 54	18 72	33 09	23 30
Indiana	27 71	18 72	31 50	22 50
Ohio	28 46	18 96	32 45	23 15
Michigan	31 26	20 48	34 95	24 15
Wisconsin	30 84	19 87	35 65	24 60
Minnesota	31 65	21 10	38 40	27 17
Iowa	28 34	18 87	33 24	23 82
Kansas	34 03	19 81	36 40	25 46
Nebraska	38 37	24 64	46 42	31 36
Utah Territory	44 71	26 32	58 22	38 41
Colorado Territory	67 50	42 12	79 16	50 00
New Mexico	25 00	16 50	30 00	25 00
California	45 71	30 35	50 00	34 39
Nevada	75 00	60 00	85 00	70 00
Washington Territory	52 25	36 25	60 50	44 50
Dakota	30 20	20 00	32 00	22 00
Oregon	35 75	22 53	41 60	29 00

Table showing the rate of wages of agricultural labor per day, in transient service, December, 1866.

STATES.	Per day, for transient service in harvest (without board).	Per day, for transient service in harvest (with board).	Per day, for transient service other than in harvest (without board).	Per day, for transient service other than in harvest (with board).
Maine	$2 02	$1 56	$1 49	$1 13
New Hampshire	1 98	1 52	1 67	1 26
Vermont	2 32	1 85	1 76	1 32
Massachusetts	2 41	1 92	1 83	1 38
Rhode Island	2 23	1 71	1 83	1 33
Connecticut	2 43	1 90	1 75	1 29
New York	2 41	1 92	1 75	1 23
New Jersey	2 68	2 38	1 68	1 20
Pennsylvania	2 32	1 80	1 59	1 10
Delaware	2 09	1 62	1 31	94
Maryland	2 00	1 68	1 31	96
Virginia	1 46	1 21	82	57
North Carolina	1 53	1 17	72	50
South Carolina	1 25	93	69	45
Georgia	1 48	1 06	99	70
Florida	1 12	83	1 00	74
Alabama	1 27	1 04	78	55
Mississippi	1 65	1 14	1 34	89
Louisiana	1 66	1 20	1 08	70
Texas	1 65	1 32	1 31	98
Arkansas	2 07	1 52	1 34	88
Tennessee	2 01	1 54	1 15	83
West Virginia	1 78	1 31	1 31	92
Kentucky	2 10	1 70	1 21	86
Missouri	2 15	1 72	1 44	1 07
Illinois	2 41	1 91	1 62	1 21
Indiana	2 23	1 76	1 45	1 06
Ohio	2 20	1 73	1 54	1 13
Michigan	2 62	2 14	1 78	1 30
Wisconsin	2 68	2 15	1 78	1 28
Minnesota	2 68	2 27	1 75	1 35
Iowa	2 38	1 88	1 62	1 19
Kansas	2 31	1 82	1 65	1 19
Nebraska	2 65	2 15	1 93	1 43
Utah Territory	3 42	2 49	2 27	1 63
Colorado Territory	4 17	2 87	3 29	1 93
New Mexico Territory	1 50	1 12	1 00	90
California	2 56	2 06	2 26	1 72
Nevada	3 50	3 00	3 00	2 50
Washington Territory	3 00	2 25	2 25	1 75
Dakota Territory	2 50	2 00	2 00	1 50
Oregon	2 40	1 80	1 75	1 40

In the Report of the Agricultural Department for 1867 we also find the following relating to the

BOARD OF FARM LABORERS.

The difference between wages without board and the rate allowed when board is furnished by the employer is naturally found to vary quite regularly with the cost of food products, the rate being higher in the East than in the West, and higher still in the Territories of the Rocky Mountains, but less in California than in Massachusetts. In the South the board of freedmen, consisting mainly of corn meal and bacon, is, of course, very low. Possibly in Alabama the difference between labor with and without board may be too small. The mode of hiring and supplying these laborers varies so much with circumstances that our correspondents found it difficult to reduce their information to the system required. The following is a statement of these differences in monthly pay on account of board, averaging $6.26 in the Southern States, and $12.51 for the other States:—

Maine	$9 56	Tennessee	$6 42
New Hampshire	10 76	West Virginia	8 88
Vermont	11 84	Kentucky	6 58
Massachusetts	16 58	Missouri	8 67
Rhode Island	13 90	Illinois	9 82
Connecticut	12 71	Indiana	8 99
New York	10 25	Ohio	9 50
New Jersey	13 29	Michigan	10 78
Pennsylvania	11 07	Wisconsin	10 97
Delaware	11 68	Minnesota	10 55
Maryland	7 60	Iowa	9 47
Virginia	5 46	Kansas	11 22
North Carolina	5 31	Nebraska	13 73
South Carolina	4 34	Utah Territory	18 39
Georgia	5 84	Colorado Territory	25 38
Florida	5 88	New Mexico Territory	8 50
Alabama	3 60	California	15 36
Mississippi	5 14	Nevada	15 00
Louisiana	8 08	Washington Territory	20 00
Texas	6 28	Dakota Territory	10 20
Arkansas	8 41	Oregon	13 22

THE MANNER OF PROCEEDING TO OBTAIN TITLE TO PUBLIC LANDS, BY PURCHASE, BY LOCATION, WITH WARRANTS OR AGRICULTURAL COLLEGE SCRIP, BY PRE-EMPTION AND HOMESTEAD.

GENERAL LAND OFFICE,
WASHINGTON, D. C., *Sept.* 17, 1867.

THE following is communicated in reference to the manner of acquiring title to the public lands under different laws of Congress:—

There are two classes of public lands, the one class at $1.25 per acre, which is designated as *minimum*, and the other at $2.50 per acre, or *double* minimum.

Title may be acquired by purchase at public sale or by ordinary "private entry," and in virtue of the pre-emption and homestead laws.

1. At public sale where lands are "offered" at public auction to the highest bidder, either pursuant to proclamation by the President, or public notice given in accordance with directions from the General Land Office.

BY "PRIVATE ENTRY" OR LOCATION.

2. The lands of this class liable to disposal are those which have been offered at public sale, and thereafter remain unsold, and which have not been subsequently reserved, or otherwise withdrawn from market. In this class of offered and unreserved public lands the following steps may be taken to acquire title:—

CASH PURCHASES.

3. The applicant must present a written application to the Register for the District in which the land desired is situated, describing the tract he wishes to purchase, giving its area. Thereupon the Register, if the tract is vacant, will so certify to the Receiver, stating the price, and the applicant must then pay the amount of the purchase money.

The Receiver will then issue to the purchaser a duplicate receipt, and at the close of the month the Register and Receiver

will make returns of the sale to the General Land Office, from whence, when the proceedings are found regular, a patent or complete title will be issued; and on surrender of the duplicate receipt such patent will be delivered, at the option of the patentee, either by the Commissioner at Washington, or by the Register at the District Land Office.

LOCATIONS WITH WARRANTS.

4. Application must be made as in cash cases, but must be accompanied by a warrant duly assigned as the consideration for the land; yet where the tract is $2.50 per acre, the party, in addition to the surrendered warrant, must pay in *cash* $1.25 per acre, as the warrant is in satisfaction of only so many acres as are mentioned on its face

A duplicate certificate of location will then be furnished the party, to be held until the patent is delivered, as in cases of cash sales.

The following fees are chargeable by the land officers, and the several amounts must be *paid at the time of location*:—

For a 40-acre warrant, 50 cents each to the Register and Receiver—Total,	$1 00
For a 60-acre warrant, 75 cents " " " " " "	1 50
For an 80-acre warrant, $1.00 " " " " " "	2 00
For a 120-acre warrant, $1.50 " " " " " "	3 00
For a 160-acre warrant, $2.00 " " " " " "	4 00

AGRICULTURAL COLLEGE SCRIP.

5. This scrip is applicable to lands *not mineral*, which may be subject to private entry at $1.25 per acre, yet is restricted to a technical "*quarter section*;" that is, lands embraced by the quarter section lines indicated on the official plats of survey, or it may be located on a *part* of a "quarter section," where such part is taken as in full for a quarter, but it can not be applied to different subdivisions to make an area equivalent to a quarter section. The manner of proceeding to acquire title with this class of paper is the same as in cash and warrant cases, the fees to be paid being the same as on warrants.

PRE-EMPTIONS TO THE EXTENT OF ONE QUARTER SECTION, OR ONE HUNDRED AND SIXTY ACRES.

6. These may be made under the general pre-emption laws of 4th September, 1841, U. S. Statutes, vol. 5, page 455, and 3d March, 1843, vol. 5, page 619, upon "offered" and "unoffered" land, and in certain States and Territories west of the Mississippi, including that part of Minnesota east of the river, may have legal

inception by actual settlement upon *unsurveyed* land, although in such cases no definitive proceedings can be had as to the completion of title until after the surveys are officially returned to the District Land Office.

7. The Act of 3d March, 1853, U. S. Statutes, vol. 10, page 244, extends the pre-emption for one-quarter, or 160 acres, at $2.50 per acre, to every "*alternate*" United States or *reserved* section along the line of railroads.

8. The Act of 27th March, 1854, vol. 10, page 269, chap. XXV., protects the right of settlers on sections along the line of railroads, where settlements existed prior to withdrawal, and in such cases allows the tract to be taken by pre-emptors at $1.25 per acre. Copies of these laws, marked A, B, C, and D, will be found herewith.

9. Where the tract is "*offered*," the party must file with the District Land Office his declaratory statement as to the fact of his settlement within thirty days from the date of said settlement, and, within one year from that date, must appear before the Register and Receiver and make proof of his actual residence on and cultivation of the tract, and secure the same by paying *cash*, or by filing warrant duly assigned to the pre-emptor.

10. Where the tract has been surveyed and *not* offered at public sale, the claimant must file within three months from date of settlement, and make proof and payment before the day designated in President's proclamation for offering the lands at public sale.

11. Should the settler in either of the aforesaid cases die before establishing his claim within the period limited by law, the title may be perfected by the executor, administrator, or one of the heirs, by making the requisite proof of settlement and paying for the land; the entry to be made in the name of "the heirs" of the deceased settler, and the patent will be issued accordingly.

12. In those States and Territories in which settlements are authorized by law on *unsurveyed* land, the claimant must file notice of settlement within three months after the receipt of the township plat of survey at the District Land Office, and make proof and payment as required under 10th head in the foregoing.

The Act of June 2, 1862, vol. 12, page 413, in relation to *Colorado*, contains special provisions in this respect.

LAWS EXTENDING THE HOMESTEAD PRIVILEGE.

13. The original Homestead Act of May 20, 1862, gives to every citizen, and to those who had declared their intentions to become such, the right to a homestead on *surveyed* lands. This is conceded to the extent of one-quarter section, or 160 acres, at $1.25 per acre, or 80 acres of double minimum in any *organized district* embracing *surveyed* public lands, except in the five Southern Land States hereinafter mentioned, where the right is restricted to 80 acres minimum, and 40 acres double minimum.

14. To obtain homesteads the party must, in connection with his application, make an affidavit before the Register or Receiver that he is over the age of twenty-one, or the head of a family; that he is a citizen of the United States, or has declared his intention to become such, and that the entry is made for exclusive use and benefit and for actual settlement and cultivation.

15. Where the applicant is prevented by reason of bodily infirmity, distance, or other good cause, from personal attendance at the District Land Office, the affidavit may be made before the clerk of the court for the county within which the party is an actual resident.

16. The amendatory Act of 21st March, 1864, U. S. Statutes, vol. 13, page 35, relaxes the requirements of personal attendance at the district office to persons in the military or naval service, where the party's family, or some member, *is residing on the land* that it is desired to enter, and upon which a bona fide improvement and cultivation had been made. In such cases the said Act of 1864 allows the beneficiary to make the affidavit before the officer commanding in the branch of service in which he may be engaged, and the same may be filed, by the wife or other representative of the absentee, with the Register, together with the homestead application.

His claim in that case will become effective from the date of filing, provided the required fee and commissions accompany the same, but immediately upon his discharge he must enter upon the land and make it his bona fide home, as required by the original Act of 20th May, 1862.

17. Under said Act of May 20, 1862, and the Supplement of 20th March, 1864, it is required that for homestead entries on *surveyed* lands in MICHIGAN, WISCONSIN, IOWA, MISSOURI, MINNESOTA, KANSAS, NEBRASKA, and DAKOTA, fees are to be paid according to the following table:—

Acres.	Price per acre.	Commissions.		Fees.	Total Fees and Commissions.
		Payable *when entry is made.*	Payable when *Patent* issues.	Payable when entry is made.	
160	$1 25	$4 00	$4 00	$10 00	$18 00
80	1 25	2 00	2 00	5 00	9 00
40	1 25	1 00	1 00	5 00	7 00
80	2 50	4 00	4 00	10 00	18 00
40	2 50	2 00	2 00	5 00	9 00

The above rates will apply to Ohio, Indiana, and Illinois, if any vacant tracts can be found liable to homestead in those three States, where but very few isolated tracts of public land remain undisposed of.

18. In the PACIFIC *and other* POLITICAL DIVISIONS, viz.: On *surveyed* lands in CALIFORNIA, NEVADA, OREGON, COLORADO, NEW MEXICO, and WASHINGTON, and in ARIZONA, IDAHO, and MONTANA, where subdivisional surveys shall have been made in the three last-mentioned Territories, the commissions and fees are to be paid according to the following table:—

Acres.	Price per acre.	Commissions.		Fees.	Total Fees and Commissions.
		Payable *when entry is made.*	Payable on issue of *Patent.*	Payable when entry is made.	
160	$1 25	$6 00	$6 00	$10 00	$22 00
80	1 25	3 00	3 00	5 00	11 00
40	1 25	1 50	1 50	5 00	8 00
80	2 50	6 00	6 00	10 00	22 00
40	2 50	3 00	3 00	5 00	11 00

19. The Act of 21st June, 1866, Statutes of 1866, page 66, provides for the disposal of public lands for homestead actual settlements in the States of *Alabama*, *Mississippi*, *Louisiana*, *Arkansas*, and *Florida*.

The law restricts homestead entries in these States to "half-quarter," or 80-acre tracts of ordinary minimum, or 40 acres of double minimum, the tariff prescribed for such entries in said Southern States being as follows:—

SOUTHERN LAND STATES.

Acres.	Price per acre.	Commissions.		Fees.	Total.
		Payable at date of entry.	Payable when entry is consummated.	Payable when Patent issues.	
80	$1 25	$2 00	$2 00	$5 00	$9 00
40	1 25	1 00	1 00	5 00	7 00
40	2 50	2 00	2 00	5 00	9 00

20. The Receiver will issue his receipt showing such payment either under the original Act of 1862, or those of 1864 and 1866, copies of which (E, F, and G) are annexed, and will furnish a duplicate to the claimant.

The matter will then be entered on their records and reported to the General Land Office.

21. An inceptive right is vested in the settler by such proceedings, and upon faithful observance of the law in regard to settlement and cultivation for the continuous term of five years, and at the expiration of that time, or within two years thereafter, upon proper proof to the satisfaction of the land officers, and payment to the Receiver, the Register will issue his certificate, and make proper returns to this office as the basis of a patent or complete title for the homestead.

22. Where a homestead settler dies before the consummation of his claim, the heirs may continue the settlement and cultivation, and obtain title upon requisite proof at the proper time.

Where both parents die leaving infant heirs, the homestead is required to be sold for cash for the benefit of such heirs, and the purchaser will receive title from the United States.

23. The sale of a homestead claim by the settler to another

party before completion of title is not recognized by this office, and not only vests no title or equities in the purchaser, but would be *prima facie* evidence of abandonment, and give cause for cancellation of the claim.

24. As the law allows but one homestead privilege, a settler relinquishing or abandoning his claim can not thereafter make a second entry. Where an individual has made settlement on a surveyed tract and filed his pre-emption declaration therefor, he may change his filing into homestead, yet such change is inadmissible where an adverse right has intervened, but in such cases the settler has the privilege of perfecting his title under the pre-emption laws.

25. If the homestead settler does not wish to remain five years on his tract, the law permits him to pay for it with cash or warrants, upon making proof of settlement and cultivation from the date of entry to the time of payment.

This proof of actual settlement and cultivation must be the affidavit of the party made before the local officers, corroborated by the testimony of two credible witnesses.

26. There is another class of homesteads, designated as "adjoining farm homesteads." In these cases the law allows an applicant, *owning* and *residing* on an original farm, to enter other land lying contiguous thereto, which shall not, with such farm, exceed in the aggregate 160 acres. Thus, for example, a party owning or occupying 80 *acres*, may enter 80 additional, of $1.25, or 40 acres of $2.50 land. Or, suppose the applicant to own 40 *acres*, then he may enter 120 acres at $1.25, or 40 at $1.25 and 40 at $2.50, if both classes of lands should be found contiguous to his original farm. In entries of "adjoining farms" the settler must describe, in his affidavit, the tract he owns, and is settled upon as his original farm. Actual residence on the tract entered as an adjoining tract is not required, but *bona fide* improvement and cultivation of it must be shown for the period required by statute.

27. Lands obtained under the homestead laws are exempted from liability for debts contracted prior to the issuing of patent therefor.

Forms of affidavits and applications required upon initiation of claim are hereto annexed, numbered from one to four.

28. It is the duty of the Registers and Receivers to be in attendance at their offices, and give proper facilities and information to persons applying for lands.

29. A list of all the land offices in the United States is hereto annexed.

JOS. S. WILSON,
Commissioner of the General Land Office.

THE PRE-EMPTION LAW.

(A.)

AN ACT to appropriate the proceeds of the sales of the public lands and to grant pre-emption rights.

SEC. 10. *And be it further enacted*, That, from and after the passage of this act, every person, being the head of a family, or widow, or single man over the age of twenty-one years, and being a citizen of the United States, or having filed his declaration of intention to become a citizen as required by the naturalization laws, who, since the first day of June, A. D. eighteen hundred and forty, has made, or shall hereafter make, a settlement in person on the public lands, to which the Indian title had been, at the time of such settlement, extinguished, and which has been, or shall have been, surveyed prior thereto, and who shall inhabit and improve the same, and who has or shall erect a dwelling thereon, shall be, and is hereby, authorized to enter with the register of the land office for the district in which such land may lie, by legal subdivisions, any number of acres not exceeding one hundred and sixty, or a quarter section of land, to include the residence of such claimant, upon paying to the United States the minimum price of such land, subject, however, to the following limitations and exceptions: No person shall be entitled to more than one pre-emptive right by virtue of this act; no person who is the proprietor of three hundred and twenty acres of land in any State or Territory of the United States, and no person who shall quit or abandon his residence on his own land to reside on the public land in the same State or Territory, shall acquire any right of pre-emption under this act; no lands included in any reservation, by any treaty, law, or proclamation of the President of the United States, or reserved for salines, or for other purposes; no lands reserved for the support of schools, nor the lands acquired by either of the two last treaties with the Miami tribe of Indians in the State of Indiana, or which may be acquired of the Wyandot tribe of Indians in the State of Ohio, or other Indian reservation to which the title has been or may be extinguished by the United States at any time during the operation of this act; no sections of land reserved to the United States alternate to other sections granted to any of the States for the construction of any canal, railroad, or other public improvement; no sections or fractions of sections included within the limits of any incorporated town; no portions of the public lands which have been selected as the site for a city or town; no parcel or lot of land actually settled and occupied for the purposes of trade and not agriculture; and no lands on which are situated any known salines or mines, shall be liable to entry under and by virtue of the provisions of this act. And so much of the proviso of the act of twenty-second of June, eighteen hundred and thirty-eight, or any order of the President of the United States, as directs certain reservations to be made in favor of certain claims under the treaty of Dancing Rabbit Creek, be, and the same is hereby, repealed: *Provided*, That such repeal shall not affect any title to any tract of land secured in virtue of said treaty.

SEC. 11. *And be it further enacted*, That when two or more persons shall have settled on the same quarter section of land, the right of pre-emption shall be in him or her who made the first settlement, provided such persons shall conform to the other provisions of this act; and all questions as to the right of pre-emption arising between different settlers shall be settled by the register and receiver of the district within which the land is situated, subject to an appeal to, and a revision by, the Secretary of the Treasury [Interior] of the United States.*

SEC. 12. *And be it further enacted*, That prior to any entries being made under

* Appellate power vested in Commissioner of the General Land Office. See 10th sec. act 12th June, 1858 (Statutes, vol. 11, p. 326).

and by virtue of the provisions of this act, proof of the settlement and improvement thereby required shall be made to the satisfaction of the register and receiver of the land district in which such lands may lie, agreeably to such rules as shall be prescribed by the Secretary of the Treasury [Interior], who shall each be entitled to receive fifty cents from each applicant for his services, to be rendered as aforesaid; and all assignments and transfers of the right hereby secured, prior to the issuing of the patent, shall be null and void.

SEC. 13. *And be it further enacted*, That before any person claiming the benefit of this act shall be allowed to enter such lands, he or she shall make oath before the receiver or register of the land district in which the land is situated (who are hereby authorized to administer the same), that he or she has never had the benefit of any right of pre-emption under this act; that he or she is not the owner of three hundred and twenty acres of land in any State or Territory of the United States, nor hath he or she settled upon and improved said land to sell the same on speculation, but in good faith to appropriate it to his or her own exclusive use or benefit; and that he or she has not, directly or indirectly, made any agreement or contract, in any way or manner, with any person or persons whatsoever, by which the title which he or she might acquire from the Government of the United States should inure in whole or in part to the benefit of any person except himself or herself; and if any person taking such oath shall swear falsely in the premises, he or she shall be subject to all the pains and penalties of perjury, and shall forfeit the money which he or she may have paid for said land, and all right and title to the same; and any grant or conveyance which he or she may have made, except in the hands of bona fide purchasers, for a valuable consideration, shall be null and void. And it shall be the duty of the officer administering such oath to file a certificate thereof in the public land office of such district, and to transmit a duplicate copy to the General Land Office; either of which shall be good and sufficient evidence that such oath was administered according to law.

SEC. 14. *And be it further enacted*, That this act shall not delay the sale of any of the public lands of the United States beyond the time which has been, or may be, appointed by the proclamation of the President; nor shall the provisions of this act be available to any person or persons who shall fail to make the proof and payment, and file the affidavit required, before the day appointed for the commencement of the sales as aforesaid.

SEC. 15. *And be it further enacted*, That whenever any person has settled or shall settle and improve a tract of land subject at the time of settlement to private entry, and shall intend to purchase the same under the provisions of this act, such person shall, in the first case, within three months after the passage of the same, and, in the last, within thirty days next after the date of such settlement, file with the register of the proper district a written statement describing the lands settled upon, and declaring the intention of such person to claim the same under the provisions of this act; and shall, where such settlement is already made, within twelve months after the passage of this act, and where it shall hereafter be made, within the same period after the date of such settlement, make the proof, affidavit, and payment herein required; and if he or she shall fail to file such written statement as aforesaid, or shall fail to make such affidavit, proof, and payment within the twelve months aforesaid, the tract of land so settled and improved shall be subject to the entry of any other purchaser.

Approved September 4, 1841.

(B.)

AN ACT to authorize the investigation of alleged frauds under the pre-emption laws, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioner of the General Land Office

be, and he hereby is, authorized to appoint a competent agent, whose duty it shall be, under direction of said Commissioner, to investigate, upon oath, the cases of fraud under the pre-emption laws alleged to exist in the Columbus land district, in the State of Mississippi, referred to in the late annual report of said Commissioner, communicated to Congress by letter of the Secretary of the Treasury, dated December the fifteenth, one thousand eight hundred and forty-two; and that such agent shall examine all witnesses who may be brought before him by the individual or individuals alleging the fraud, as well as those witnesses who may be produced by the parties in interest to sustain said claims; and that he be, and is hereby, invested with power to administer to such witnesses an oath to speak the truth in regard to any question which may be deemed necessary to the full examination of the cases so alleged to be fraudulent; and such testimony shall be reduced to writing, and subscribed by each witness, and the same returned to the Commissioner, with the opinion of said agent on each claim; and any witness so examined before the said agent, who shall swear willfully and falsely in regard to any matter or thing touching such examination, shall be subject, on conviction, to all the pains and penalties of perjury; and it shall be the duty of the Commissioner to decide the cases thus returned, and finally to settle the matter in controversy, subject alone to an appeal to the Secretary of the Treasury: *Provided*, That the power conferred by this section upon such agent is hereby limited to the term of one year from and after the date of this act; and the compensation to be paid to said agent shall not exceed three dollars per day for each day he may be necessarily engaged in the performance of the duties required by this section.

SEC. 2. *And be it further enacted*, That in any case where a party entitled to claim the benefits of any of the pre-emption laws, shall have died before consummating his claim by filing, in due time, all the papers essential to the establishment of the same, it shall be competent for the executor or administrator of the estate of such party, or one of the heirs, to file the necessary papers to complete the same: *Provided*, That the entry in such cases shall be made in favor of "the heirs" of the deceased pre-emptor, and a patent thereon shall cause the title to inure to said heirs as if their names had been specially mentioned.

SEC. 3. *And be it further enacted*, That every settler on section sixteen, reserved for the use of schools, or on other reserves or land covered by private claims of others, which was not surveyed at the time of such settlement, and who shall otherwise come within the provisions of the several pre-emption laws in force at the time of the settlement, upon proof thereof before the register of the proper land office, shall be entitled to enter, at the minimum price, any other quarter section, or fractional section, or fractional quarter section, in the land district in which such school section or reserve or private claim may lie, so as not to exceed one hundred and sixty acres, not reserved from sale or in the occupancy of any actual *bona fide* settler: *Provided*, Such settlement was made before the date of the act of fourth September, eighteen hundred and forty-one, and after the extinguishment of the Indian title.

SEC. 4. *And be it further enacted*, That where an individual has filed, under the late pre-emption law, his declaration of intention to claim the benefits of said law for one tract of land, it shall not be lawful for the same individual at any future time to file a second declaration for another tract.

SEC. 5. *And be it further enacted*, That claimants under the late pre-emption law, for land not yet proclaimed for sale, are required to make known their claims, in writing, to the register of the proper land office, within three months from the date of this act when the settlement has been already made, and within three months from the time of the settlement when such settlements shall hereafter be made, giving the designation of the tract and the time of settlement; otherwise his claim to be forfeited, and the tract awarded to the next settler, in the order of time, on the same tract of land, who shall have given such notice, and otherwise complied with the conditions of the law.

SEC. 6. *And be it further enacted*, That whenever the vacancy of the office,

either of register or receiver, or of both, shall render it impossible for the claimant to comply with any requisition of any of the pre-emption laws within the appointed time, such vacancy shall not operate to the detriment of the party claiming in any respect to any matter essential to the establishment of this claim: *Provided*, That such requisition is complied with within the same period after the disability is removed as would have been allowed him had such disability not existed.

SEC. 7. *And be it further enacted*, That where a settler on the public lands may reside on a quarter section, a fractional quarter section, or a fraction of a section less than one hundred and sixty acres, and cultivated land on any other and different tract of either of the descriptions aforesaid, he or she shall be entitled, under the act of June twenty-two, one thousand eight hundred and thirty-eight, to the same privileges of a choice between two legal subdivisions of each, so as to include his or her house and farm, not to exceed one hundred and sixty acres in all, as is granted by the first section of that act to settlers residing on a quarter section and cultivating another and different quarter.

SEC. 8. *And be it further enacted*, That where two or more persons are residing on any of the species of tracts specified in section seven of this act, as required by the acts of the twenty-second of June, one thousand eight hundred and thirty-eight, and the first of June, one thousand eight hundred and forty, and any one or more of said settlers may have cultivated land during the period of residence required by either of said acts on another and different tract, or other and different tracts, the latter-mentioned settlers shall be entitled to the option of entering the tract lived on, jointly with the other or others, or of abandoning the tract lived on to those who have not cultivated land as above required, and entering the tract or tracts cultivated, so as not to exceed one hundred and sixty acres to any one settler who, by virtue of this section, is entitled to a separate entry; or such joint settlers may jointly enter the tract so jointly occupied by them, and, in addition, enter other contiguous unoccupied lands, by legal subdivisions, so as not to exceed one hundred and sixty acres in all to each of such joint settlers: *Provided*, That the extended privileges granted to pre-emptors by this act shall not be construed to deprive any other actual settler of his or her previous and paramount right of pre-emption, or to extend to lands reserved for any purpose whatever.

SEC. 9. *And be it further enacted*, That all persons coming within the tenth section of the act of the fourth of September, eighteen hundred and forty-one, entitled, "An act to appropriate the proceeds of the sales of the public lands and to grant pre-emption rights," shall be entitled to the right of pre-emption under its provisions, notwithstanding such persons claiming the pre-emption shall have settled upon and improved the lands claimed before the same were surveyed: *Provided*, Such settlements were made before the date of the aforesaid act, and after the extinguishment of the Indian title. And said act shall not be so construed as to preclude any person who may have filed a notice of intention to claim any tract of land by pre-emption, under said act, from the right allowed by law to others to purchase the same by private entry after the expiration of the right of pre-emption.

Approved March 3, 1843.

(C.)

AN ACT to extend pre-emption rights to certain lands therein mentioned.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the pre-emption laws of the United States, as they now exist, be, and they are hereby, extended over the alternate reserved sections of public lands along the lines of all the railroads in the United States,

wherever public lands have been, or may be, granted by acts of Congress; and that it shall be the privilege of the persons residing on any of said reserved lands, to pay for the same in soldiers' bounty land warrants, estimated at a dollar and twenty-five cents per acre, or in gold and silver, or both together, in preference to any other person, and at any time before the same shall be offered for sale at auction: *Provided*, That no person shall be entitled to the benefit of this act who has not settled and improved, or shall not settle and improve, such lands prior to the final allotment of the alternate sections to such railroads by the General Land Office: *And provided further*, That the price to be paid shall, in all cases, be two dollars and fifty cents per acre, or such other minimum price as is now fixed by law, or may be fixed, upon lands hereafter granted; and no one person shall have the right of pre-emption to more than one hundred and sixty acres: *And provided further*, That any settler who has settled, or may hereafter settle, on lands heretofore reserved on account of claims under French, Spanish, or other grants which have been, or shall be, hereafter declared by the Supreme Court of the United States to be invalid, shall be entitled to all the rights of pre-emption granted by this act and the act of fourth of September, eighteen hundred and forty-one, entitled "An act to appropriate the proceeds of the public lands and to grant pre-emption rights," after the lands shall have been released from reservation, in the same manner as if no reservation existed.

Approved March 3, 1853.

(D.)

AN ACT for the relief of settlers on lands reserved for railroad purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That every settler on public lands which have been, or may be, withdrawn from market in consequence of proposed railroads, and who had settled thereon prior to such withdrawal, shall be entitled to pre-emption, at the ordinary minimum, to the lands settled on and cultivated by them: *Provided*, They shall prove up their rights according to such rules and regulations as may be prescribed by the Secretary of the Interior, and pay for the same before the day that may be fixed by the President's proclamation for the restoration of said lands to market.

Approved March 27, 1854.

THE HOMESTEAD LAW.

(E.)

AN ACT to secure homesteads to actual settlers on the public domain.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, and who has never borne arms against the United States Government, or given aid and comfort to its enemies, shall, from and after the first January, eighteen hundred and sixty-three, be entitled to enter one quarter section or a less quantity of unappropriated public lands, upon which said person may have filed a pre-emption claim, or which may, at the time the application is made, be subject to pre-emption at one dollar and twenty-five cents, or less, per acre; or eighty acres or less of such

unappropriated lands, at two dollars and fifty cents per acre, to be located in a body, in conformity to the legal subdivisions of the public lands, and after the same shall have been surveyed: *Provided*, That any person owning and residing on land may, under the provisions of this act, enter other land lying contiguous to his or her said land, which shall not, with the land so already owned and occupied, exceed in the aggregate one hundred and sixty acres.

SEC. 2. *And be it further enacted*, That the person applying for the benefit of this act shall, upon application to the register of the land office in which he or she is about to make such entry, make affidavit before the said register or receiver that he or she is the head of a family, or is twenty-one or more years of age, or shall have performed service in the army or navy of the United States, and that he has never borne arms against the Government of the United States, or given aid and comfort to its enemies, and that such application is made for his or her exclusive use and benefit, and that said entry is made for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever; and upon filing the said affidavit with the register or receiver, and on payment of ten dollars, he or she shall thereupon be permitted to enter the quantity of land specified: *Provided, however*, That no certificate shall be given or patent issued therefor until the expiration of five years from the date of such entry: and if, at the expiration of such time, or at any time within two years thereafter, the person making such entry—or if he be dead, his widow; or in case of her death, his heirs or devisee; or in case of a widow making such entry, her heirs or devisee, in case of her death—shall prove by two credible witnesses that he, she, or they have resided upon or cultivated the same for the term of five years immediately succeeding the time of filing the affidavit aforesaid, and shall make affidavit that no part of said land has been alienated, and that he has borne true allegiance to the Government of the United States; then, in such case, he, she, or they, if at that time a citizen of the United States, shall be entitled to a patent, as in other cases provided for by law: *And provided further*, That in case of the death of both father and mother, leaving an infant child, or children under twenty-one years of age, the right and fee shall inure to the benefit of said infant child or children; and the executor, administrator, or guardian may, at any time within two years after the death of the surviving parent, and in accordance with the laws of the State in which such children for the time being have their domicil, sell said land for the benefit of said infants, but for no other purpose; and the purchaser shall acquire the absolute title by the purchase, and be entitled to a patent from the United States, on payment of the office fees and sum of money herein specified.

SEC. 3. *And be it further enacted*, That the register of the land office shall note all such applications on the tract books and plats of his office, and keep a register of all such entries, and make return thereof to the General Land Office, together with the proof upon which they have been founded.

SEC. 4. *And be it further enacted*, That no lands acquired under the provisions of this act shall in any event become liable to the satisfaction of any debt or debts contracted prior to the issuing of the patent therefor.

SEC. 5. *And be it further enacted*, That if at any time after the filing of the affidavit, as required in the second section of this act, and before the expiration of the five years aforesaid, it shall be proven, after due notice to the settler, to the satisfaction of the register of the land office, that the person having filed such affidavit shall have actually changed his or her residence, or abandoned the said land for more than six months at any time, then and in that event the land so entered shall revert to the Government.

SEC. 6. *And be it further enacted*, That no individual shall be permitted to acquire title to more than one quarter section under the provisions of this act; and that the Commissioner of the General Land Office is hereby required to prepare and issue such rules and regulations, consistent with this act, as shall be necessary and proper to carry its provisions into effect; and that the registers and

receivers of the several land offices shall be entitled to receive the same compensation for any lands entered under the provisions of this act that they are now entitled to receive when the same quantity of land is entered with money, one-half to be paid by the person making the application at the time of so doing, and the other half on the issue of the certificate by the person to whom it may be issued; but this shall not be construed to enlarge the maximum of compensation now prescribed by law for any register or receiver: *Provided*, That nothing contained in this act shall be so construed as to impair or interfere in any manner whatever with existing pre-emption rights: *And provided further*, That all persons who may have filed their applications for a pre-emption right prior to the passage of this act shall be entitled to all privileges of this act: *Provided further*, That no person who has served, or may hereafter serve, for a period of not less than fourteen days in the army or navy of the United States, either regular or volunteer, under the laws thereof, during the existence of an actual war, domestic or foreign, shall be deprived of the benefits of this act on account of not having attained the age of twenty-one years.

SEC. 7. *And be it further enacted*, That the fifth section of the act entitled "An act in addition to an act more effectually to provide for the punishment of certain crimes against the United States, and for other purposes," approved the third of March, in the year eighteen hundred and fifty-seven, shall extend to all oaths, affirmations, and affidavits required or authorized by this act.

SEC. 8. *And be it further enacted*, That nothing in this act shall be so construed as to prevent any person who has availed him or herself of the benefits of the first section of this act from paying the minimum price, or the price to which the same may have graduated, for the quantity of land so entered at any time before the expiration of the five years, and obtaining a patent therefor from the Government, as in other cases provided by law, on making proof of settlement and cultivation as provided by existing laws granting pre-emption rights.

Approved May 20, 1862.

(F.)

AN ACT amendatory of the homestead law, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in case of any person desirous of availing himself of the benefits of the homestead act of twentieth of May, eighteen hundred and sixty-two, but who, by reason of actual service in the military or naval service of the United States, is unable to do the personal preliminary acts at the district land office which the said act of twentieth May, eighteen hundred and sixty-two, requires, and whose family, or some member thereof, is residing on the land which he desires to enter, and upon which a *bona fide* improvement and settlement have been made, it shall and may be lawful for such person to make the affidavit required by said act before the officer commanding in the branch of the service in which the party may be engaged, which affidavit shall be as binding in law, and with like penalties, as if taken before the register or receiver; and upon such affidavit being filed with the register by the wife, or other representative of the party, the same shall become effective from the date of such filing, provided the said application and affidavit are accompanied by the fee and commissions as required by law.

SEC. 2. *And be it further enacted*, That, besides the ten-dollar fee exacted by the said act, the homestead applicant shall hereafter pay to the register and receiver each, as commissions, at the time of entry, one per centum upon the cash price as fixed by law of the land applied for, and like commissions when the claim is finally established and the certificate therefor issued as the basis of a patent.

SEC. 3. *And be it further enacted*, That in any case hereafter in which the applicant for the benefit of the homestead, and whose family, or some member thereof, is residing on the land which he desires to enter, and upon which a *bona fide* improvement and settlement have been made, is prevented, by reason of distance, bodily infirmity, or other good cause, from personal attendance at the district land office, it shall and may be lawful for him to make the affidavit required by the original statute before the clerk of the court for the county in which the applicant is an actual resident, and to transmit the same, with the fee and commissions, to the register and receiver.

SEC. 4. *And be it further enacted*, That in lieu of the fee allowed by the twelfth section of the pre-emption act of fourth September, eighteen hundred and forty-one, the register and receiver shall each be entitled to one dollar for their services in acting upon pre-emption claims, and shall be allowed, jointly, at the rate of fifteen cents per hundred words, for the testimony which may be reduced by them to writing for claimants in establishing pre-emption or homestead rights; the regulations for giving proper effect to the provisions of this act to be prescribed by the Commissioner of the General Land Office.

SEC. 5. *And be it further enacted*, That where a pre-emptor has taken the initiatory steps required by existing laws in regard to actual settlement, and is called away from such settlement by being actually engaged in the military or naval service of the United States, and by reason of such absence is unable to appear at the district land office to make, before the register or receiver, the affidavits required by the thirteenth section of the pre-emption act of fourth September, eighteen hundred and forty-one, the time for filing such affidavit and making final proof and entry of location shall be extended six months after the expiration of his term of service, upon satisfactory proof, by affidavit or the testimony of witnesses, that the said pre-emptor is so in the service, being filed with the register of the land office for the district in which his settlement is made.

SEC. 6. *And be it further enacted*, That the registers and receivers in the State of California, in the State of Oregon, and in the Territories of Washington, Nevada, Colorado, Idaho, New Mexico, and Arizona, shall be entitled to collect and receive, in addition to the fees and allowances provided by this act, fifty per centum of said fees and allowances as compensation for their services: *Provided*, That the salary and fees allowed any register or receiver shall not exceed in the aggregate the sum of three thousand dollars per annum.

Approved March 21, 1864.

(G.)

AN ACT for the disposal of the public lands for homestead actual settlement in the States of Alabama, Mississippi, Louisiana, Arkansas, and Florida.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That, from and after the passage of this act, all the public lands in the States of Alabama, Mississippi, Louisiana, Arkansas, and Florida shall be disposed of according to the stipulations of the homestead law of twentieth May, eighteen hundred and sixty-two, entitled "An act to secure homesteads to actual settlers on the public domain," and the act supplemental thereto, approved twenty-first of March, eighteen hundred and sixty-four, but with this restriction, that until the expiration of two years from and after the passage of this act, no entry shall be made for more than a half-quarter section, or eighty acres; and in lieu of the sum of ten dollars required to be paid by the second section of said act, there shall be paid the sum of five dollars at the time of the issue of each patent; and that the public lands in said States shall be disposed of in no other manner after the passage of this act: *Provided*, That no distinction or discrimination shall be made in the construction or execution of this

act on account of race or color: *And provided further*, That no mineral lands shall be liable to entry and settlement under its provisions.

SEC. 2. *And be it further enacted*, That section second of the above-cited homestead law, entitled "An act to secure homesteads to actual settlers on the public domain," approved May twentieth, eighteen hundred and sixty-two, be so amended as to read as follows: That the person applying for the benefit of this act shall, upon application to the register of the land office in which he or she is about to make such entry, make affidavit before the said register or receiver that he or she is the head of a family, or is twenty-one years or more of age, or shall have performed service in the army or navy of the United States, and that such application is made for his or her exclusive use and benefit, and that said entry is made for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever; and upon filing the said affidavit with the register or receiver, and on payment of five dollars, when the entry is not more than eighty acres, he or she shall thereupon be permitted to enter the amount of land specified: *Provided, however*, That no certificate shall be given or patent issued therefor until the expiration of five years from the date of such entry; and if, at the expiration of such time, or at any time within two years thereafter, the person making such entry, or, if he be dead, his widow, or, in case of her death, his heirs or devisee, or, in case of a widow making such entry, her heirs or devisee, in case of her death, shall prove by two credible witnesses that he, she, or they have resided upon or cultivated the same for the term of five years immediately succeeding the time of filing the affidavit aforesaid, and shall make affidavit that no part of said land has been alienated, and that he will bear true allegiance to the Government of the United States; then, in such case, he, she, or they, if at that time a citizen of the United States, shall be entitled to a patent, as in other cases provided by law: *And provided further*, That in case of the death of both father and mother, leaving an infant child or children under twenty-one years of age, the right and fee shall inure to the benefit of said infant child or children; and the executor, administrator, or guardian may, at any time within two years after the death of the surviving parent, and in accordance with the laws of the State in which such children, for the time being, have their domicile, sell said land for the benefit of said infants, but for no other purpose, and the purchaser shall acquire the absolute title by the purchase, and be entitled to a patent from the United States on the payment of the office fees and sum of money herein specified: *Provided*, That until the first day of January, eighteen hundred and sixty-seven, any person applying for the benefit of this act shall, in addition to the oath hereinbefore required, also make oath that he has not borne arms against the United States, or given aid and comfort to its enemies.

SEC. 3. *And be it further enacted*, That all the provisions of the said homestead law, and the act amendatory thereof, approved March twenty-first, eighteen hundred and sixty-four, so far as the same may be applicable, except so far as the same are modified by the preceding sections of this act, are applied to and made part of this act as fully as if herein enacted and set forth.

Approved June 21, 1866.

(1.)

HOMESTEAD.

APPLICATION } LAND OFFICE at ———, ———, 18 .
No.—— }

I, ——— ———, of ———, do hereby apply to enter, under the provisions of the act of Congress approved May 20, 1862, entitled "An act to secure home-

steads to actual settlers on the public domain," the ——— of section ———. in township ——— of range ———, containing ——— acres.

LAND OFFICE at ———, ———, 18 .

I, ———————, Register of the land office, do hereby certify that the above application is for surveyed lands of the class which the applicant is legally entitled to enter under the homestead act of May 20, 1862, and that there is no prior, valid, adverse right to the same.

———————,
Register.

(2.)

HOMESTEAD.

(*Affidavit.*) LAND OFFICE at———

(*Date.*)———

I,———————————, of———————————, having filed my *Application No.*————, for an entry under the provisions of the act of Congress, approved May 20, 1862, entitled "An act to secure homesteads to actual settlers on the public domain," do solemnly swear, that [*Here state whether the applicant is the head of a family, or over twenty-one years of age; whether a citizen of the United States, or has filed his declaration of intention of becoming such; or, if under twenty-one years of age, that he has served not less than fourteen days in the army or navy of the United States during actual war; that said Application No.——— is made for his or her exclusive benefit; and that said entry is made for the purpose of actual settlement and cultivation, and not, directly or indirectly, for the use or benefit of any other person or persons whomsoever.*]

Sworn to and subscribed, this —— day of ———, before ——————,
[*Register or Receiver*] *of the Land Office.*

UNITED STATES LAND OFFICES.

OHIO.

Chillicothe.

INDIANA.

Indianapolis.

ILLINOIS.

Springfield.

MISSOURI.

Booneville,
Ironton,
Springfield

ALABAMA.

Mobile,
Huntsville,
Montgomery.

MISSISSIPPI.

Jackson.

LOUISIANA.

New Orleans,
Monroe,
Natchitoches.

MICHIGAN.

Detroit,
East Saginaw,
Ionia,
Marquette,
Traverse City.

ARKANSAS.

Little Rock,
Washington,
Clarksville.

FLORIDA.

Tallahassee.

IOWA.

Fort Des Moines,
Council Bluffs,
Fort Dodge,
Sioux City.

WISCONSIN.

Menasha,
Falls of St. Croix,
Stevens' Point,
La Crosse,
Bayfield,
Eau Claire.

CALIFORNIA.

San Francisco,
Marysville,
Humboldt,
Stockton,
Visalia,
Sacramento.

NEVADA.

Carson City,
Austin,
Belmont.

WASHINGTON T.

Olympia,
Vancouver.

MINNESOTA.

Taylor's Falls,
St. Cloud,
Winnebago City,
St. Peter,
Greenleaf,
Du Luth.

OREGON.

Oregon City,
Roseburg,
Le Grand.

KANSAS.

Topeka,
Junction City,
Humboldt.

NEBRASKA.

Omaha City,
Brownsville,
Nebraska City,
Dakota City.

NEW MEXICO T.

Santa Fé.

DAKOTA T.

Vermilion.

COLORADO T.

Denver City,
Fair Play.

IDAHO T.

Boise City,
Lewiston.

MONTANA T.

Helena.

ARIZONA T.

Prescott.

NATURALIZATION.

ANY adult alien, or foreigner, whose native country is at peace with the United States, may become a naturalized citizen on the following conditions:—

1st. Provided that, after a residence of three years in the United States, he shall declare his intention to become a citizen according to the following

DECLARATION OF INTENTION.

IN THE COURT OF ——— FOR THE CITY AND COUNTY OF ———.

I, ...
do declare on oath, that it is *bona fide* my INTENTION to become a CITIZEN of the UNITED STATES, and to renounce forever all allegiance and fidelity to any foreign prince, potentate, State or sovereignty whatever, and particularly to the ———, of whom I am a subject.

Sworn this *day of* , 186 .

2d. Provided he has resided one year within the State where he makes his application.

3d. Provided he has behaved as a man of good moral character up to the time of his admission.

4th. Provided he shall satisfy the Court and declare on oath that it was his *bona fide* intention to become a citizen during the three years preceding his application, and makes oath that he will support the Constitution of the United States, and abjure all allegiance forever to his native country, and renounce his title or order of nobility, if he have any.

Two years after declaring his intention, the foreigner who has complied with the foregoing conditions, will, upon application to the Court, receive the following

CERTIFICATE OF CITIZENSHIP.

BE IT REMEMBERED, that on the ——— day of ——— in the year of our Lord one thousand eight hundred and —— appeared in the COURT OF —— (the said Court being a COURT OF RECORD, having common law jurisdiction, and a Clerk and Seal), and applied to the said Court to be admitted, to become a CITIZEN OF THE UNITED STATES OF AMERICA, pursuant to the directions of the Act of Congress of the United States of America, entitled, "An Act to establish an uniform rule of Naturalization, and to repeal the Acts heretofore passed on that subject," passed April 14, 1802; and the Act entitled, "An Act for the regulation of Seamen on board the public and private vessels of the United States, passed March 3, 1813; and the Act relative to evidence in cases of Naturalization," passed March 22, 1816; and the Act entitled, "An Act in further addition to an Act to establish an uniform rule of Naturalization; and to repeal the Acts heretofore passed on that subject," passed May 26, 1824; and an Act entitled, "An Act to amend the Acts concerning Naturalization," passed May 24, 1828; and an Act to amend the Act entitled "An Act for the regulation of Seamen on board the public and private vessels of the United States," passed June 26, 1848, and "An Act to secure the rights of Citizenship to the children of Citizens of the United States, born out of the limits thereof," passed 10th February, 1854. And the said applicant having thereupon produced to the Court such evidence, made such declaration and renunciation, and taken such oaths as are by the said Acts required: THEREUPON IT WAS ORDERED BY THE SAID COURT, that the said applicant be admitted, and he was accordingly admitted to be a CITIZEN OF THE UNITED STATES OF AMERICA. *In Testimony Whereof, the Seal of the said Court is hereto affixed, this —— day —— of ——— 18 ——, in the ——— year of the Independence of the United States.*

J. S., *Clerk.*

By the Court.

If any alien who has complied with the necessary conditions should die before he is actually naturalized, his wife and children may become citizens upon taking the prescribed oaths.

The children of persons duly naturalized, if minors at the time their parents were admitted to the right of citizenship, shall, if dwelling in the United States, be deemed citizens without taking out papers to that effect.

Any applicant for the rights of citizenship who has resided in

the United States during the three years next preceding his arriving at the age of twenty-one years, may dispense with the declaration of intention.

If the applicant is of age, and has been a soldier in the army of the United States, and honorably discharged therefrom, he may be admitted as a citizen after a continued residence of one year within the United States.

ROUTES FOR THE EMIGRANT, FARES, ETC.

The foreign emigrant, upon his arrival in this country, will probably have gold and silver money, which at present commands a premium over the paper money of the United States of from thirty to forty per cent.—that is, for every dollar in gold coin he may get at any respectable broker's office one dollar and thirty or forty cents in the currency of the United States. The premium fluctuates, but is quoted daily in the newspapers of all the large cities.

Emigrants should be cautious in making this exchange, as well as in the purchase of railway or steamship tickets. Swindling exchange and ticket offices exist in New York, and there are plenty of bad men here, as in other large cities, who are continually seeking to defraud the inexperienced of their money.

Having decided upon his route, it will be best for the emigrant either to buy his ticket at the ticket agency in Castle Garden, or go directly to the office of the railway by which he intends to leave New York, and after making the necessary inquiries, to purchase there a ticket through to the point nearest his destination. There is no charge for small children, and those between the ages of four and twelve years are taken at half fare.

All railways in the United States allow the emigrant at least eighty pounds of luggage, for which no charge is made. More than this amount is generally charged for. This luggage must be contained in trunks, chests, or other convenient and usual packages.

Furniture, &c., will not be taken, unless as freight; in which case it must be well boxed, its destination plainly marked upon it, and a receipt obtained for it at the office of the railway by which it goes forward. It is not economy to

transport ordinary bulky furniture, such as bedsteads, bureaus, &c., far by rail. The freight is often as much as the cost of new articles, which can be bought in most parts of the West and South as wanted.

Most of the great trunk or through lines run trains especially for emigrants, charging about two-thirds first-class fare. "Emigrant trains" leave New York daily on each of the great roads leading West, starting generally about seven o'clock in the evening, and connecting through to all points in the West. Emigrant cars are not as comfortable as first-class cars, and emigrant trains move more slowly than the regular passenger trains, or at about the speed of "fast freight" trains. The average time to Dunkirk by emigrant trains is twenty-five hours; to Cincinnati, two days; to Chicago, two and a half days; to St. Louis, three days; the trains stopping three times, daily, to enable the passengers to get food. An excellent and economical plan is to provide a basket and fill it with cooked provisions before leaving New York, so that in case of delay along the line the traveler need not go hungry.

The emigrant who leaves New York for the interior by rail may choose either of the three following routes. Fares to prominent points in the West are the same upon either:—

1.—THE ERIE RAILWAY.

This great railway extends from New York to Dunkirk, on the shores of Lake Erie, 460 miles. It runs through a pleasant country, abounding in fine scenery. It is a "wide gauge" road, the cars being wider and more comfortable than those upon "narrow gauge" roads. At Salamanca, forty-five miles this side of Dunkirk, this road connects with the Atlantic and Great Western Railway (also wide gauge). This is a favorite route to the West, connecting at Cincinnati with the Ohio and Mississippi Railway, which stretches away to St. Louis.

At Dunkirk the Erie Railway connects with the Lake Shore line, which skirts the southern shore of Lake Erie, and forms

connections with all the railway lines penetrating the South and West.

2.—HUDSON RIVER AND NEW YORK CENTRAL.

These two railways form a connecting line from New York City to Buffalo and Niagara Falls, connecting at Buffalo with the Lake Shore road, and at Niagara Falls with the Great Western Railway of Canada.

The Hudson River and New York Central line is a very favorite passenger route. It passes through many leading cities of New York State, including Albany, the capital. Time and fare same as by the Erie.

3.—CENTRAL NEW JERSEY AND PENNSYLVANIA CENTRAL.

These two roads form a connecting line, without change of cars, from New York City to Pittsburg, situated in the western part of Pennsylvania, upon the Ohio River. Railways connect this point with all parts of the West and South, and during the greater portion of the year passenger steamboats run down the river, forming water connections with all points upon the navigable rivers of the West and South. Passengers on these boats are entitled to meals without extra charge.

These are the three great lines of railway travel leading West from New York City, and each of these roads run emigrant trains daily. As has been stated, the fares are generally the same upon either route, unless, as is sometimes the case, a temporary rivalry cuts down the price.

Steamships run regularly between New York and Richmond, Savannah, Mobile, and New Orleans, and there are also lines of railway extending to those points, giving the emigrant choice between a land and water route.

When ocean or inland water communication is available this method of travel is sometimes preferable, especially to those with large families and much luggage. The river and rail-

road systems of our country are so extensive that nearly every desirable point for the emigrant may be reached with very little wagon transportation. Nearly all the great railway lines are so connected that the termini of each are simply transfer points, whence the traveler may proceed without delay to his destination. Emigrants destined to any of the following States, from New York may find the following directions useful.

TO MICHIGAN.

If to central or northern portions of the State, travelers can take either the Erie Railway, or New York Central, connecting at Niagara Falls with the Great Western Railway of Canada, for Detroit. Fare to Detroit, first-class, $16.45; second-class, or emigrant, $10.15. If to the southern or southwestern part, take Lake Shore road, at Buffalo or Dunkirk, and connect at Toledo with the Michigan Southern. This last road runs from Lake Erie to Lake Michigan, with several prominent stations along the route, whence the emigrant can find convenient access to points desired. Fare to White Pigeon, a central town on this road, first-class, $20; emigrant, $11.90.

TO ILLINOIS.

To reach northern or western portions of this State, emigrants will go direct to Chicago, having a choice of the three great lines from New York. Fare to Chicago, first-class, $20; emigrant, $13. To reach southern Illinois, take Erie route and its connections, Atlantic and Great Western, Bellefontaine, Terre Haute and Alton, or from Cincinnati *via* Ohio and Mississippi Railroad. Fare to Mattoon, a central point in southern Illinois, first-class, $25.20; emigrant, $13.95; to Odin, on Ohio and Mississippi emigrant, $14.85.

TO WISCONSIN.

Passengers desiring to reach the southern portions of Wisconsin, will proceed direct to Chicago, from whence there is a

choice of routes to western, interior, and northern Wisconsin. A popular and pleasant summer route, is *via* the Detroit and Milwaukee Railroad, crossing Lake Michigan by steamer to Milwaukee. Fare to Madison, the capital of Wisconsin, and a central point, first-class, $24.45; emigrant, $17.60.

TO IOWA.

Direct to Chicago; thence by most direct route to the Mississippi River, taking such road as strikes nearest point in Iowa to desired destination. Fare to Dubuque, Dunleith, and Davenport, first-class, $28.50; emigrant, about $19. To Des Moines, emigrant, $23.75.

TO MINNESOTA.

First to Chicago; thence by most direct route to the Mississippi River, where steamers pass daily, bound for St. Paul and intermediate ports; or take railroad through Wisconsin: choice of two or three routes. Fare to Austin, a river town in southern Minnesota, first-class, $35.65; emigrant, $27.80. To St. Paul, first-class, $40.85; emigrant, $33. From these points, railroads run to the interior of the State.

TO MISSOURI.

To northern part: Take Erie or New York Central route, and connect through to Quincy, Ill., striking the Hannibal and St. Joseph Railroad which traverses the northern part of the State.

To central or southern part: Take either of the three routes from New York, and connect through to St. Louis. Fare to St. Louis, first-class, $30.50; emigrant, $16.10. To Quincy, first-class, $28; emigrant, $16.30.

TO KANSAS.

Go direct to St. Louis or Quincy; thence to St. Joseph or Kansas City, from which points easy communication can be had with Leavenworth; first-class, to Leavenworth, $39.70; emigrant, $22.85.

TO NEBRASKA.

Best route is *via* Chicago, thence direct to Omaha. From this last point the great Pacific Railroad stretches nearly across the continent. Fare to Omaha, first-class, $42; emigrant, $26.80. To Kearney, first-class, $61; emigrant, $40.

TO DAKOTA.

There is no railway extending to this Territory as yet. Emigrants will proceed to Omaha or Sioux City, and take steamboat for Yancton, the capital of Dakota.

TO COLORADO.

By the way of Chicago, Omaha, and the Pacific Railroad, to Cheyenne, where a branch road to Denver is being constructed. Fare to Cheyenne, first-class, $80.70; emigrant, $68.70. To Denver, $92.70 for first-class; no emigrant rates at present, beyond Cheyenne.

TO ARIZONA.

To reach this Territory travelers, at present, generally proceed to California, thence by coast steamers to Gulf of California. No rates of fare obtainable.

TO UTAH AND MONTANA.

These Territories are reached by way of the Pacific Railroad, already extended nearly to Salt Lake City. Fare to Salt Lake, first-class, $152; emigrant, $140. From Salt Lake, emigrants for Montana proceed by private conveyance, or by stage-coach; no rates of fare can be given as reliable.

TO THE PACIFIC STATES.

At present the most convenient and most economical route to the Pacific is by steamer, *via* Panama or Nicaragua, to San

Francisco. Fare varies from $50 to $250, depending upon competition of rival lines. When overland railway communication is complete, rates will doubtless be more uniform and favorable for the emigrant.

TO VIRGINIA.

Emigrants can go by water to Norfolk and Richmond for from $5 to $6, or by rail, to the same and other points, at about two-thirds first-class rates.

TO WEST VIRGINIA.

Take Pennsylvania Central Railroad, or Baltimore and Ohio route. Fare to Wheeling, first-class, $13.50; emigrant, $8.20. To Parkersburg, first-class, $16.50; emigrant, $10.25.

TO NORTH CAROLINA.

Travelers have a choice of land or water route, the latter most economical. Rates of fare by water are not fixed, but special advantageous contracts can at all times be made for parties traveling together.

TO GEORGIA.

Same facilities as those last abovementioned. Steamers run regularly between New York and Savannah, connecting at latter point with interior lines of railway. Fare to Savannah, first-class, $35; to Macon, $40; emigrant tariff not established, but, as a general thing, about two-thirds first-class rates.

TO ALABAMA.

By steamer to Mobile, or choice of several inland railroad lines. Fare to Mobile by rail, first-class, $50.50; Montgomery, $48; Decatur, emigrant, $20.10.

TO MISSISSIPPI.

By rail to Cairo; thence down Mississippi River by steamer. Fare, first-class, to Vicksburg, $57; emigrant, $26.20. To Jackson, first-class, $48; emigrant, about $30.

TO LOUISIANA.

Several routes are open to the traveler; all sea voyage from New York City; part rail and part river travel, *via* the Mississippi River, and all rail, *via* three or four routes. Most comfortable inland route probably by rail to Cairo, thence down the river to New Orleans. Fare by ocean route, first-class, $60; emigrant, $30; *via* Cairo and Mississippi River, emigrant, $27.20.

TO TEXAS.

Travelers can go direct from New York to Galveston by steamer or sail vessel, or by inland or ocean route to New Orleans, thence by steam on the Gulf. Fare by ocean route, direct, steam, first-class, $70; emigrant, $35.

TO TENNESSEE, KENTUCKY, AND ARKANSAS.

Take either of great railway lines to Cincinnati or Cairo, connecting at these points with steamers down the river. If the interior portions of Kentucky or Tennessee are to be reached, take railroad at Covington or Louisville, thence south to destination. Fare to Nashville, first-class, $30.50; emigrant, $19.20. To Memphis, first-class, $38.25; emigrant, $21.20. To Louisville, Ky., first-class, $23; emigrant, $13.70. To Lexington, first-class, $22.50; emigrant, $13.50. To Napoleon, Arkansas, first-class, $46.25; emigrant, 24.20. To Little Rock, first-class, $54.25; emigrant, $28.

The reader will bear in mind that these rates of fare are subject to change, but in all probability they will be reduced

rather than increased. The emigrant desiring to reach any particular point not mentioned in this chapter, can examine the general map of the United States, and by reference to rate of fare to nearest point of destination, form a tolerably correct estimate of the cost of reaching his journey's end. Cards of distances and time schedules can be obtained on all roads.

THROUGH EMIGRANT TARIFF, DECEMBER, 1868.

Children under four years of age, *free*. Between four and twelve, *half price*.

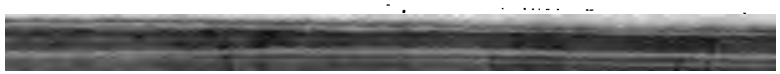
EACH ADULT PASSENGER ALLOWED EIGHTY POUNDS OF LUGGAGE.

FROM NEW YORK TO	Luggage per 100 lbs.	Fare.
Adrian.....Mich.	$2 65	$10 80
Agency City.....Iowa.	4 25	22 50
Alton.....Ill.	4 10	15 40
Ann Arbor.....Mich.	2 50	11 25
Atchison.....Kansas.	5 20	23 35
Ashtabula.....Ohio.	2 15	8 60
Appleton.....Wis.	4 35	20 10
Austin.....Minn.	5 40	27 80
Berlin.....Wis.	4 50	19 25
Beloit.....Wis.	3 70	16 00
Bloomington.....Ill.	3 75	17 25
Burlington.....Iowa.	3 90	19 00
Baton Rouge, La., Cairo and Steamer.....5	30	27 20
Beaver Dam.....Wis.	4 00	17 90
Chicago.....Ill.	3 20	13 00
Cincinnati.....Ohio.	3 05	11 50
Cairo.....Ill.	4 30	18 20
Cedar Rapids.....Iowa.	4 60	20 50
Cleveland.....Ohio.	2 30	8 95
Columbus.....Ohio.	2 70	10 00
Crestline.....Ohio.	2 50	9 45
Centralia.....Ill.	4 00	15 35
Council Bluffs, via C. and N. W. Railway..Iowa.	6 40	29 50
Council Bluffs, via St. Joseph.....Iowa.	5 55	26 30
Cheyenne....Dakota Ter.	14 30	68 70
Clarksville.....Tenn.	4 20	19 20
Chattanooga.....Tenn.	4 70	20 70

FROM NEW YORK TO	Luggage per 100 lbs.	Fare.
Dunkirk.....N. Y.	$1 90	$6 50
Decatur.....Ala.	4 60	20 10
Dubuque.....Iowa.	4 45	19 60
Dunleith.....Ill.	4 40	19 50
Detroit.....Mich.	2 40	10 15
Detroit, via Toledo.Mich.	2 60	11 15
Des Moines.....Iowa.	5 65	23 75
Davenport.....Iowa.	3 85	18 60
Erie.....Pa.	2 05	8 30
Ellsworth.....Kansas.	8 45	38 85
Fairfield.....Iowa.	4 15	21 55
Fort Wayne.....Ind.	2 90	11 10
Fond du Lac.....Wis.	4 15	18 75
Fort Hayes.....Kansas.	9 30	44 35
Fort Riley.....Kansas.	7 45	31 85
Fairbault.....Minn.	5 80	30 20
Galena.....Ill.	4 30	19 45
Green Bay.....Wis.	4 50	21 25
Grand Rapids.....Mich.	2 90	12 95
Hannibal.....Mo.	4 20	17 30
Horicon.....Wis.	3 95	17 50
Herrman.....Mo.	4 50	17 75
Helena, Cairo and Steamer.....Ark.	4 60	22 20
Hastings or Prescott.Minn.	..	..
Indianapolis.....Ind.	3 20	12 35
Iowa City.....Iowa.	4 10	20 15

THROUGH EMIGRANT TARIFF—*Continued.*

FROM NEW YORK TO		Luggage per 100 lbs.	Fare.
Independence	Iowa.	$4 90	$21 50
Iowa Falls	Iowa.	5 40	23 00
Joliet	Ill.	3 35	14 80
Jeffersonville	Ind.	3 40	13 20
Jefferson City	Mo.	4 75	18 65
Janesville	Wis.	3 70	16 00
Jackson	Mich.	2 65	12 45
Julesburg	Colorado.	12 15	58 30
Junction City	Kansas.	6 60	32 10
Kenosha	Wis.	3 45	14 80
Kalamazoo	Mich.	3 00	13 00
Keokuk	Iowa.	4 10	16 80
Kansas City	Mo.	5 50	21 85
Lawrence	Kansas.	5 75	24 60
Lake Pepin	Minn.	5 60	23 50
Louisville	Ky.	3 45	13 70
La Crosse	Wis.	4 85	23 50
Logansport	Ind.	3 15	12 45
Leavenworth	Kansas.	5 40	22 85
Lexington	Ky.	3 65	13 50
Madison	Ind.	3 35	12 75
Madison	Wis.	4 35	17 60
Milwaukee, via Chicago	Wis.	3 65	15 50
Milwaukee, via D. and M. R. R.	Wis.	3 20	13 00
Marshall	Mich.	2 75	13 00
Mendota	Ill.	3 50	16 40
Muscatine	Iowa.	4 00	19 70
Mattoon	Ill.	3 65	13 95
Mineral Point	Wis.	4 35	19 70
Manchester	Iowa.	4 80	21 25
Memphis, Tenn., Rail from Louisville		4 40	21 20
Memphis, Tenn., Cairo & Steamer		4 40	21 20
Minnesota Junction	Wis.	3 95	17 50
Manhattan	Kansas.	7 20	30 50
Minneapolis	Minn.	5 90	33 00
Niagara Falls	N. Y.	1 80	6 00
Nashville	Tenn.	4 20	19 20
Nebraska City	Neb.	5 85	26 30
Natchez, Cairo and Steamer	Miss.	5 00	27 20
New Orleans, La., Cairo and Steamer		5 00	27 20
New Orleans, La., Rail from Louisville		5 00	29 70
Napoleon, Ark., Cairo & Steamer		$4 70	$24 20
Oshkosh	Wis.	4 20	19 30
Omaha, via C. and N. W. Railway	Nebraska.	6 50	30 00
Omaha, via St. Jos.	Neb.	5 65	26 80
Paris	Tenn.	4 25	19 45
Parkersburg	W. Va.	2 60	10 25
Portage City	Wis.	4 50	19 30
Peoria	Ill.	3 80	14 10
Prairie du Chien	Wis.	4 80	21 50
Pittsburg	Pa.	2 20	7 10
Quincy	Ill.	4 05	16 30
Racine	Wis.	3 50	15 15
Rock Island	Ill.	3 85	18 50
Redwing	Minn.	..	..
Springfield	Ill.	3 85	14 90
St. Louis	Mo.	4 20	16 10
St. Joseph	Mo.	5 10	21 85
St. Paul, via Rail	Minn.	5 90	33 00
Shelbyville	Ill.	3 85	14 45
Salt Lake City	Utah.	26 90	140 00
St. Charles	Mo.	4 35	17 10
Sioux City	Iowa.	6 95	34 00
Salina	Kansas.	8 00	35 85
Terre Haute	Ind.	3 45	13 25
Toledo	Ohio.	2 55	10 35
Topeka	Kansas.	6 40	26 60
Union	Ind.	3 00	11 30
Vincennes	Ind.	3 75	13 90
Vicksburg, Miss., Cairo and Steamer		4 90	26 20
Vicksburg, Miss., Rail from Louisville		6 00	33 70
White Pigeon	Mich.	3 00	11 90
Watertown	Wis.	3 90	17 25
Wabash	Ind.	3 00	11 60
Washington	Iowa.	4 20	20 80
Washington	Mo.	4 50	17 70
Wheeling	W. Va.	2 30	8 20
Winona	Minn.	5 20	27 50
White River, Ark., Cairo and Steamer		4 70	24 20



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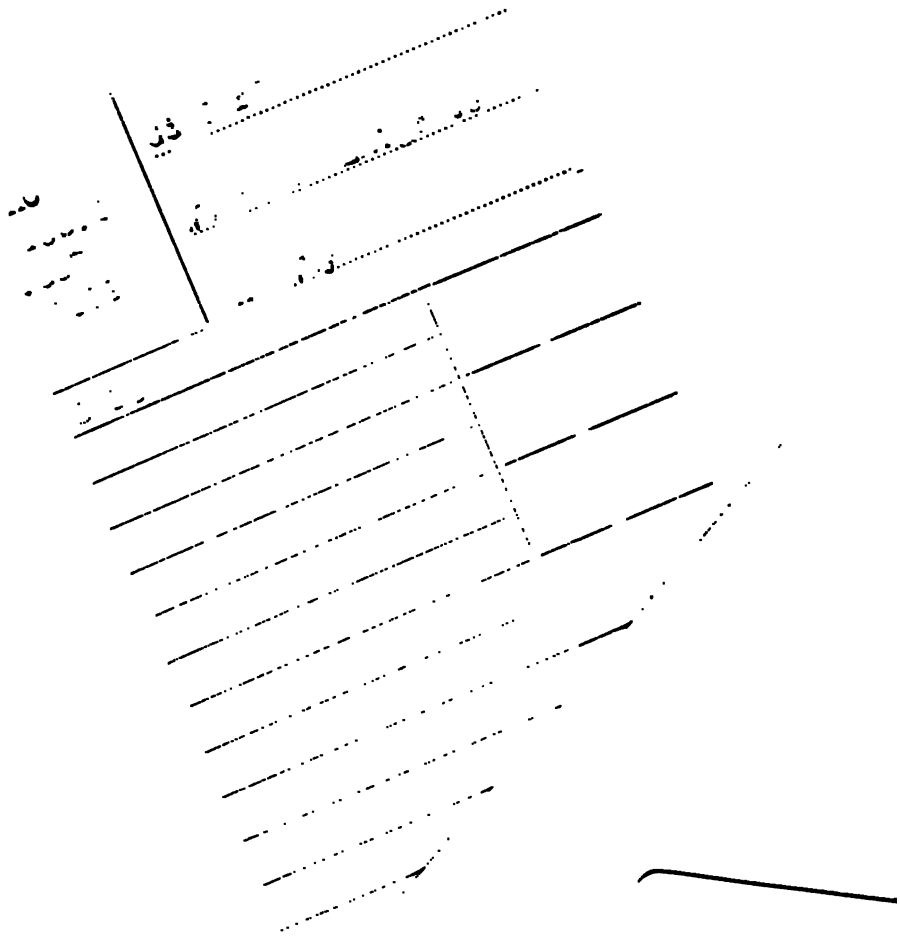
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